

The Invisible Empire

Border Protection on the Electronic Frontier



Submitted for the Degree of
Doctor of Philosophy

by

Michael Kent

School of Media, Communication and Culture
Murdoch University
2005

Declaration

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

Michael Kent

8/08/2005

Copyright © July 2005

Michael Kent

Acknowledgements

I would like to thank my family for their support and encouragement throughout my research, without which I doubt this thesis would have been produced. I also have a fantastic group of friends who have also played a large role in the completion of this thesis.

Of equal importance has been the mentoring, support and driving force provided by my supervisor Associate Professor Tara Brabazon. I could not have hoped for a better supervisor. I am both proud and grateful to join the ranks of those who have produced a thesis under her auspices.

Amanda Ellis has tolerated my late nights, erratic behaviours and general untidiness more than anyone should have to. She has been a source of personal and professional support well in excess of what anyone could expect and I would like to take this opportunity to thank her for being there for me.

My thanks also go to Associate Professor Matthew Allen whose enthusiasm and encouragement got me started.

Finally, my colleagues at the Popular Culture Collective have been an invaluable source of insight, critique and competition. They help make Murdoch University the vibrant and interesting place that brought me back there to complete this research.

My cat Spirit has not really helped at all, but I thought he deserved a mention.

Mickey K.

List of Contents

Declaration.....	i
Acknowledgements	iii
List of Contents	v
Illustrations.....	x
Publications and Conference Presentations	xiv
Publications.....	xiv
Conference Papers	xiv
Abstract.....	1
Introduction.....	6
Chapter 1 A History of Exclusion: Telecommunications and the Universal Service Obligation in Australia	34
History of Telecommunications in Australia and the	39
Universal Service Obligation.....	39
Changing Definitions. Shifting Paradigms.....	59
Service.....	60
Universal.....	66
Obligation.....	68

Home, Hearth, and DSL?.....	72
Public Telephone Networks.....	80
Argument Against the USO in Australia.....	85
No Service?	88
Access within Indigenous Communities	90
Access by People with Disabilities	95
Access within Rural and Remote Communities.....	96
Global Telephone Access.....	99
Chapter 2 The Gates of Empire: Internet Access.....	105
The Screen.....	106
The Matrix of Access.....	112
Cultware	130
Chapter 3 Networks and Digitisation	142
Introduction.....	143
Networks.....	145
Changing Conditions.....	160
Welcome to the Digital Economy	163
The Digital Self.....	177
Chapter 4 The Digital Citizen	189

What is Citizenship?	195
The Digital Citizen	202
Digital Deviants	206
The Digital Underclass	216
Chapter 5 Digital Sovereignty	222
The History of the Sovereign: God, Church, and Nation State.	224
The Crown: the Sovereign Identity.....	225
The Nation State: the Sovereign in Space	240
The Evolution of the Citizen and the State: the Sovereign in Time	242
Sovereignty and the Invisible Empire	247
Digital Sovereignty	254
Who are the Digital Sovereigns?	268
Who Controls the Grammar of the Internet?	273
Forbidden Texts.....	275
Chapter 6 Core and Periphery: The Invisible Empire	280
The History of the Analogue Empire	282
The Invisible Empire.....	307
Digital Colonialism.....	313
MMORPGs and the Virtual Sweatshops of the Invisible Empire	326

Chapter 7 Resistance and the Nation State	354
Introduction.....	355
The Colonial Critic.....	356
The Nation State and Colonial Resistance	365
The Nation State and the Invisible Empire	366
Tuvalu	369
Southafrica.com.....	375
Chapter 8 The Digital Subaltern.....	394
Introduction.....	395
The Subaltern.....	399
The Intellectual	403
The Digital Subaltern	407
Consciousness.....	411
The White Man's Burden of the Digital Flâneur?.....	422
The Edge of the Screen.....	431
Conclusion: The Intellectual.....	437
Appendix A: Bibliography	448
<i>On Screen:</i>	448
Books	448

Journals and Academic Papers	450
Government Publications	451
Web Sites	453
The Press	458
Motion Pictures.....	464
Videos	464
<i>Off Screen:</i>	465
Books	465
Journals and Academic Papers	483
Government Publications	489
The Press	491
Appendix B: CD-ROM The Invisible Empire, Digital Version	493

Illustrations

Figure 1 Doonesbury Cartoon, 13th November 1994	6
Figure 2 The Dot Com ‘Bubble’ in Technology Stock Prices, 2000	21
Figure 3 Sam Boulding (1992-2002)	34
Figure 4 USO Extended Zones and Pilot Areas	49
Figure 5 Networking the Nation Funded Internet Access Facilities	76
Figure 6 1800 Reverse Web Advertising	81
Figure 7 Teletypewriter Locations: Perth	83
Figure 8 Teletypewriter Locations: Regional Western Australia	84
Figure 9 Power Supply to Indigenous Communities in Australia	92
Figure 10 Telstra Advertisement, 2003	94
Figure 11 Fixed Telephone Line Penetrations Rates	98
Figure 12 The Damascus Gate of Jerusalem	105
Figure 13 Wetware, The Novel	115
Figure 14 Cartoon by Randy Glasbergen, 2003	116
Figure 15 Coca-Cola Advertising and Traffic Lights in Kings Cross	118
Figure 16 Windows NT	119
Figure 17 The Matrix of Access	124
Figure 18 ABC Online Tech Talk Forum	126
Figure 19 Australian Football League Web Site	128
Figure 20 Australian Football League Web Site: translated by Loband	129
Figure 21 Evolution of the Digital Citizen	130
Figure 22 Cultware	135
Figure 23 Cartoon by Fran	138
Figure 24 St Stephens Gate of Jerusalem	140
Figure 25 Missile Tracks Across the Net	142
Figure 26 Growth in Network Value	146
Figure 27 Effects of Limited Network Utility	148
Figure 28 Moore’s Law	150
Figure 29 1989 Maestro Modem	151
Figure 30 2004 Billion ADSL Router	152
Figure 31 First Page of the World Wide Web, 6th August 1991	155
Figure 32 Slowing of Internet Growth in the United State	157

Figure 33 Maverick	159
Figure 34 <i>The Marketplace at Pontoise</i> by Ludovic Piette, (1826-77).....	163
Figure 35 ASX	164
Figure 36 The Introduction to Brooke’s Poem	174
Figure 37 William Shakespeare’s Romeo and Juliet, 1996	176
Figure 38 Nokia Advertisement	179
Figure 39 Content Creation and Different Applications	182
Figure 40 Audience and Different Applications	183
Figure 41 Mapping Digital Identity. The Terrorism Information Awareness Program	185
Figure 42 Cartoon by Charles Barsotti, 28th October 2002	187
Figure 43 Photography by Grant V. Faint	189
Figure 44 The Digital Citizen	206
Figure 45 Cartoon by Matthew Diffie 29th May 2000	209
Figure 46 Sherman Austin	212
Figure 47 Norton Internet Security	215
Figure 48 Cartoon by Harley Schwadron	216
Figure 49 Cartoons by Garry Trudeau, 21st – 25th January 2003	222
Figure 50 The Coronation of HM Queen Elizabeth II, 2nd June 1953	224
Figure 51 The Tudor Rose	226
Figure 52 Dante’s Hell	227
Figure 53 The Australian Army Rising Sun Badge	228
Figure 54 Charles I, King of England, Scotland and Ireland	230
Figure 55 Apple Computer Inc. logo	231
Figure 56 <i>The Snake and Angels Wings</i> by Hugo Simberg, Tampere Cathedra.....	232
Figure 57 <i>The Trial of Wycliffe</i> , Manchester Town Hall, by Ford Maddox	234
Figure 58 Tyndale’s Bible	235
Figure 59 Europe in 1648, Peace of Westphalia	240
Figure 60 <i>Time</i> by Dave McKean	242
Figure 61 <i>St Paul Preaching in Athens</i> , painting by Raphael.	244
Figure 62 Mahatma Ghandi attending the Round Table Conference in London, 1931	245
Figure 63 David Cake	246
Figure 64 Crown Pictures	254

Figure 65 Tux the Penguin, the official Linux Mascot	256
Figure 66 KaZaA	260
Figure 67 Motion Picture Association of America	261
Figure 68 <i>The Tower</i> by Dave McKean	267
Figure 69 <i>User Friendly</i> by Illiad	269
Figure 70 Australian Communications Authority	270
Figure 71 World Wide Web Consortium	272
Figure 72 Saint Isidore of Seville	278
Figure 73 Where does my loyalty lie if not here?	280
Figure 74 The Roads of the Roman Empire	283
Figure 75 The Roman Empire at its height	285
Figure 76 Roman Legionnaires	286
Figure 77 British Imperial Bases, 1898	288
Figure 78 The Spread of English	290
Figure 79 <i>Peter Pett and the 'Sovereign of the Seas'</i>	292
Figure 80 Advertising Posters from the Empire Marketing Board, May 1928	293
Figure 81 Maori Christ walking on the water of Lake Rotorua – lakeside Anglican Church	295
Figure 82 Gurkha Soldiers, 1896	296
Figure 83 F18 Hornets of The United States Air Force	300
Figure 84 United States Military Deployment	301
Figure 85 Location of United States Military Bases	302
Figure 86 World Bank headquarters in Washington, D.C	304
Figure 87 The Internet, July 1999	309
Figure 88 First Monday Readership	310
Figure 89 Internet Mapping Project	311
Figure 90 World Wide Web around Wikipedia	312
Figure 91 Advertising Poster from the Empire Marketing Board, January 1927	318
Figure 92 Digital Photomontage by Gregory Heisler for <i>Time Magazine</i>, 27th December 1999	322
Figure 93 Photograph by David Burnett, <i>Time Magazine</i>, 27th December 1999	323
Figure 94 Photograph by David Burnett, <i>Time Magazine</i>, 27th December 1999	324
Figure 95 Advertising Poster from the Empire Marketing Board, April 1927.	324

Figure 96 MMORPG Subscriptions, July 2005	327
Figure 97 Lineage II	328
Figure 98 Invuln Plate Mail \$49 EBay resale price, photo by Ken Brown	329
Figure 99 Bundle of Hay \$16 EBay resale price, photo by Ken Brown	330
Figure 100 Castle: \$2,053 EBay resale price, photo by Ken Brown	335
Figure 101 EBay	336
Figure 102 Breakdown of MMORPG Players by Profession and Gender	337
Figure 103 Gaming Open Markets	344
Figure 104 Lore Brand Comics	346
Figure 105 Virtual Sweatshops in Fujian province, China	349
Figure 106 Spinning the Web: the global cotton industry	351
Figure 107 Resistance	354
Figure 108 Bishop Bartolome Las Casas	356
Figure 109 Adam Smith	357
Figure 110 Edward Said	360
Figure 111 Protesters in Paris during the May 1968 general strike	361
Figure 112 Flag of Tuvalu	369
Figure 113 Map of Tuvalu	373
Figure 114 South Africa.com	375
Figure 115 Virtual Countries.com	376
Figure 116 Flag of the Republic of South Africa	376
Figure 117 New Zealand.com	380
Figure 118 New Zealand Coat of Arms	381
Figure 119 The Popular Culture Collective	383
Figure 120 Domain Name Registrations, April 2005	384
Figure 121 The Real Digital Divide	394
Figure 122 The Spectrum of Access	409
Figure 123 Advertising Poster from the Empire Marketing Board, December 1928	422
Figure 124 Evolution of non-English-speaking Online Population	427
Figure 125 Internet users by language	428
Figure 126 Online language populations	429
Figure 127 The Manticore	435

Publications and Conference Presentations

Publications

Kent M., 'Spam Regulation and Australia: National Sovereignty and the .au' *AQ, The Australian Quarterly*. July-August 2004, volume 76, issue 4.

Brabazon T., Cull F., Kent M. & McRae L., 'Jingling the single: The i-Podification of the music industry' *AQ, The Australian Quarterly*. Forthcoming

Brabazon T. & Kent M. (eds), *Access All Areas: Building an E-Democracy*. Sydney: UNSW Press, 2006.

Kent M., 'Universal Service Obligation', in Brabazon T. & Kent M. (eds), *Access All Areas: Building an E-Democracy*. Sydney: UNSW Press, 2006.

Kent M., 'He who pays the piper must call the tune?', in Brabazon T. & Kent M. (eds), *Access All Areas: Building an E-Democracy*. Sydney: UNSW Press, 2006.

Brabazon T. & Kent M., 'What's in a domain? Tuvalu and the building a digital pacifica', in Brabazon T. & Kent M. (eds), *Access All Areas: Building an E-Democracy*. Sydney: UNSW Press, 2006.

Brabazon T. & Kent M., 'The Digital Door Bitch', in Brabazon T. & Kent M. (eds), *Access All Areas: Building an E-Democracy*. Sydney: UNSW Press, 2006.

Conference Papers

Kent M.
'The Invisible Empire'
Cultural Studies Association of Australasia
Perth, Western Australia 2004

Kent M.
'Colonial Revenge, Virtual Resources, and the .TV Domain'
Cybercultures: Exploring Critical Issues, 3rd Global Conference
Prague, Czech Republic 2005

Abstract

The first codes of the Internet made their tentative steps along the information highway in 1969, connecting two computers at UCLA. Since that time, the Internet has grown beyond institutions of research and scholarship. It is now a venue for commerce, popular culture and political discourse. The last decade, following the development of the World Wide Web, has seen access to the Internet, particularly in wealthy countries such as Australia, spread throughout the majority of the population. While this proliferation of users has created many opportunities, it also profiled questions of disadvantage. The development and continuation of a digital divide between the information ‘haves’ and ‘have nots’ was framed as a problem of ‘access.’ In the context of the increasing population online, debates into social inequity have been directed at technical barriers to access, the physical infrastructure and economic impediments to the adoption of the medium by all members of society.

This doctoral research probes questions of access with greater subtlety, arching beyond the spread of broadband or the expansion of computers into schools. Forging dialogues between Internet and Cultural Studies, new theories of the screen – as a barrier and border – emerge. It is an appropriate time for such a study. The (seemingly) ever expanding growth in Internet access is stalling. New approaches are required to not only understand the pattern of events, but the type and mode of intervention that is possible.

This doctoral research takes theory, politics and policy to the next stage in the history of digital access. By forging interdisciplinary dialogues, the goal is to develop the

concept of 'cultware'. This term, building on the history of hardware, software and wetware, demonstrates the imperative of understanding context in the framing and forging of exclusion and disempowerment. Mobilising the insights of postcolonial theory, Popular Cultural Studies, literacy theory and socio-legal studies, a new network of exclusions emerge that require a broader palette of interventionary strategies than can be solved through infrastructure or freeing codes. Commencing with the Universal Service Obligation, and probing the meaning of each term in this phrase and policy, there is a discussion of networks and 'gates' of the Digital Empire. Discussions then follow of citizenship, sovereignty, nationalism and the subaltern. By applying the insights of intellectual culture from the analogue age, there is not only an emphasis on the continuities between 'old' and 'new' media, but a confirmation of how a focus on 'the new' can mask the profound perpetuation of analogue injustices.

Access to the Invisible Empire occurs for each individual in a solitary fashion. Alone at the screen, each person is atomised at the point where they interface with the digital. This thesis dissects that point of access. The three components of access at the screen – hardware, software and wetware – intersect and dialogue. All three components form a matrix of access. However, the ability to attain hardware, software and wetware are distinct. An awareness of how and where to attain these literacies requires the activation of cultware, the context in which the three components manifest. Without such an intersection, access is not possible. The size of the overlap determines the scale of the gateway and the value of access. There is an interaction between each of these components that can alter both the value of the access obtained and the point at which the gateway becomes viable and stable for

entry into the digital discourse. A highly proficient user with developed wetware is able to extract more value, capital and currency from hardware and software. They have expert knowledge in the use of this medium in contrast to a novice user. In dissecting the complexity of access, my original contribution to knowledge is developing this concept of cultware and confirming its value in explaining digital inequalities.

This thesis diagnoses the nodes and structures of digital and analogue inequality. Critical and interpretative Internet Studies, inflected and informed by Cultural Studies approaches and theories, offers methods for intervention, providing contextual understanding of the manifestations of power and social justice in a digital environment. In enacting this project, familiar tropes and theories from Cultural Studies are deployed. Particular attention is placed on the insights of postcolonial theorists. *The Invisible Empire*, following the path of the digital intellectual, seeks to act as a translator between the digital subaltern and the digital citizen. Similarly, it seeks to apply pre-existing off screen theory and methodology to the Invisible Empire, illuminating how these theories can be reapplied to the digitised environment.

Within this context, my research provides a significant and original contribution to knowledge in this field. The majority of analyses in critical and interpretative Internet Studies have centred on the United States and Europe. While correlations can be drawn from these studies, there are features unique to the Australian environment, both socially and culturally, as well as physical factors such as the geographic separation and sparse distribution of the population, that limit the ability

to translate these previous findings into an Australian context. The writer, as a white Australian, is liminally positioned in the colonial equation: being a citizen of a (formerly) colonised nation with the relics of Empire littering the symbolic landscape, while also – through presence and language – perpetuating the colonization of the Indigenous peoples. This ‘in-betweenness’ adds discomfort, texture and movement to the research, which is a fundamentally appropriate state to understand the gentle confluences between the digital and analogue.

In this context, the screen is the gateway to the Invisible Empire. However, unlike the analogue gate in the city wall that guards a physical core, these gates guard a non-corporeal Invisible Empire. Whereas barbarians could storm the gates of Rome without the literacy to understand the workings of the Empire within, when an army masses to physically strike at these gates, the only consequences are a broken monitor. Questions cannot be asked at the gate to an Invisible Empire. There is no common space in which the digital subaltern and the digital citizen cohabitate. There is no node at which translation can occur. These gates to the Invisible Empire are numerous. The walls cannot be breached and the gates are only open for the citizenry with the required literacy. This literacy in the codes of access is an absolute requirement to pass the gates of Invisible Empire. The digital citizen transverses these gates alone. It is a point where the off screen self interfaces the digital self. Social interaction occurs on either side of the screen, but not at the gateway itself.

Resistance within the borders of Invisible Empire is one of the founding ideologies of the Internet, tracing its origin back to the cyberpunk literature that predicted the rise of the network. However this was a resistance to authority, both on and off

screen, by the highly literate on screen: the hacker and the cyber-jockey. This thesis addresses resistance to the Invisible Empire from outside its borders. Such an intervention is activated not through a Luddite rejection of technology, but by examining the conditions at the periphery of Empire, the impacts of digital colonisation, and how this potential exclusion can be overcome. Debates around digital literacy have been deliberately removed or bypassed to narrow the debate about the future of the digital environment to a focus on the material commodities necessary to gain access and the potential for more online consumers. Cultware has been neglected.

The Invisible Empire, like its analogue predecessors, reaches across the borders of Nation States, as well as snaking invisibly through and between the analogue population, threatening and breaking down previous understandings of citizenship and sovereignty. It invokes new forms of core-periphery relations, a new type of digital colonialism. As the spread of Internet access tapers, and the borders of Empire close to those caught outside, the condition of the digital subaltern calls for outside intervention, the place of the intellectual to raise consciousness of these new colonial relations, both at the core and periphery. My doctoral thesis commences this project.

Image Removed

Figure 1
Doonesbury Cartoon, 13th November 1994
<http://www.doonesbury.com/>
[accessed 15.3.2003]

‘I have said on numerous occasions, and I still believe, that with the development of the Internet, and with the increasing pervasiveness of communication between networked computers, we are in the middle of the most transforming technological event since the capture of fire. I used to think that it was just the biggest thing since Gutenberg, but now I think you have to go back farther. There has been much written both celebrating and denouncing cyberspace, but to me this seems a development of such magnitude that trying to characterize it as a good thing or a bad thing trivializes it considerably. . . . Over the long haul, I'd say that society, everything that is human on this planet, is going to be profoundly transformed by this, and in many ways, some of which will be scary to those of us with this mindset [refusal], some of which will be glorious and transforming.’

– John Perry Barlow, co-founder Electronic Frontiers Foundation¹

¹ J. P. Barlow, S. Birkets, K. Kelly & M. Slouka, ‘Harper's forum: what are we doing online?’, *Harper's*. August 1995, pp. 35-46.

The Invisible Empire is not a history of the Internet. Myriad texts (re)tell this streamlined chronological narrative.² *The Invisible Empire* is not a history of the World Wide Web. Many tales of CERN (Conseil Européen pour la Recherche Nucléaire), Netscape and Explorer tell this e-commerce story.³ Instead, my research configures a critical and interpretative analysis of Web access. Deploying longitudinal and quantitative studies from PEW's 'Internet and American Life Project' and others,⁴ I strategically work through the data to provide context and

² Examples of these histories, or chronological narratives, include the following texts: K. Hafner, *Where Wizards Stay up Late: The Origins of the Internet*. New York: Simon & Schuster, 1998.

T. J. Misa, *Leonardo to the Internet: Technology & Culture from the Renaissance to the Present*. Baltimore, Md. & London: Johns Hopkins University Press, 2004.

J. Naughton, *A Brief History of the Future: From Radio Days to Internet Years in a Lifetime*. Woodstock N.Y.: Overlook Press, 2000.

H. Poole, T. Schuyler, T. Senft, & C. Moschovitis, *History of the Internet: A chronology 1843 to the Present*. Santa Barbara: ABC – Cleo Inc, 1999.

³ Please refer to T. Berners-Lee, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web*. San Francisco: HarperSanFrancisco, 1999, M. A. Cusumano, *Competing on Internet Time: Lessons from Netscape and its Battle with Microsoft*. New York: Free Press, 1998, J. Gillies & R. Cailliau, *How The Web Was Born: The Story of the World Wide Web*. Oxford: Oxford University Press, 2000, J. Quittner & M. Slatalla, *Speeding the Net: The Inside Story of Netscape and How It Changed the World*. London: Orion Books, 1998.

⁴ The scale and breadth of PEW's longitudinal studies provide a strong foundation for interpretative research. To view examples of these reports, please refer to the following range of reports. M. Madden & L. Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003. <http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

K. Aisbett, *The Internet at Home: A Report on Internet Use in the Home*. Sydney: Australian Broadcast Authority, 2001. <http://www.aba.gov.au/internet/research/home/> [accessed 25.4.2005].

National Office of the Information Economy, *Survey of Australian Programs to Increase Individual and Community Access to the Internet*. Canberra: The Commonwealth of Australia, October 2000. <http://www.noie.gov.au/projects/access/Archive/cps/> [accessed 6.12.2003].

N. Selwyn, S. Gorard & J. Furlong, 'Whose Internet is it Anyway?: Exploring Adults' (Non) Use of the Internet in Everyday Life', *European Journal of Communication*. 2005, volume 20, issue 1.

National Office of the Information Economy, *The Current State of Play: Australia's Scorecard*. Canberra: The Commonwealth of Australia, April 2002.

http://www.noie.gov.au/projects/framework/Progress/ie_stats/CSOP_April2002/CSOP_April2002.pdf [accessed 3.12.2003].

National Office of the Information Economy, *The Current State of Play May 2001*. Canberra: The Commonwealth of Australia, May 2001.

<http://www.noie.gov.au/projects/framework/progress/ie%5Fstats/csop%5Fjune2001/readiness/readiness1.htm> [accessed 31.3.2003].

social understanding for the statistics and trends. This is a (post) access research thesis.

The growth of the World Wide Web can no longer be described as ‘exponential’ or ‘revolutionary.’ Theoretical discussions of the ‘digital divide’ rarely link contemporary technological exclusions with historical inequalities.⁵ *The Invisible Empire* configures a critical and interpretative evaluation of a mature World Wide Web. Deploying the interdisciplinary insights of Internet Studies and Cultural Studies, my original contribution to knowledge is to present the consequences and causes for not addressing and contextualizing Web access as a primary concern, and what will happen to culture, economics and the management of social difference if we continue to avoid questions of education, literacy and colonisation. Deploying the term *cultware* to stress the significance of context-embedded web literacies, I

H. Bonfadelli, ‘The Internet and Knowledge Gaps: A theoretical and Empirical Investigation’, *European Journal of Communication*. 2002, volume 17, issue 1.

F. Fan, *U.S. Internet Usage Shows Mature Growth, Forcing Innovation of New Web Offerings, According to Nielson//Netratings*. Nielson//Netratings. <http://direct.www.nielsen-netratings.com/news.jsp> [accessed 24.3.2005].

The Information Industries Taskforce, *The Global Information Economy: The Way Ahead*. Canberra: Department of Industry, Science and Tourism, 1997.

5 J. McConnaughey, D. W. Everette, T. Reynolds & W Lader (eds), *Falling Through the Net: Defining the Digital Divide*. Washington: U.S. Department of Commerce, 1999.

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O’Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

M. Madden & L. Rainie, *America’s Online Pursuits: The Changing Picture of Who’s Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003.

<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

R. Azari & J. B. Pick, ‘Technology and society: socioeconomic influences on technological sectors for United States counties’, *International Journal of Information Management*. February 2005, volume 25, issue 1, p. 21.

L. J. Servon, *Bridging the Digital Divide: Technology, Community and Public Policy*. Malden, MA.: Blackwell Publishers, 2002.

J. Jeffrey, *Bridging the Digital Divide*. Northhampton, MA.: Edward Elgar Publishers, 2003.

demonstrate that strategic political interventions are necessary in the digital landscape. With precision, I also display where they should occur.

In February 1999, the Organisation of Economic Co-operation and Development (OECD) published *The Economic and Social Impacts of Electronic Commerce: Preliminary Findings and Research Agenda*. This report specifically called for further study into the effects of the Internet and electronic commerce and how they will contribute to distributional inequalities.⁶ This paper confirmed the need for further investigation of the impact of the then emerging technologies on socio-economic disparity and polarisation within society. My research addresses the distributional inequalities perpetuated and increased through electronic commerce. To understand these inequalities, it is necessary to extend beyond the narrow analysis of electronic commerce that was prominent at that time and look at the wider social divisions that may occur as a result of the inequitable distribution of access to the Internet. The Internet needs to be framed not just as a delivery system, but rather as a mode of communication. This change alters the way that it is theorised, researched and politicised. Rather than viewing it as a passive and ideologically neutral technological system that simply delivers goods and services,⁷ the Internet is transformed into a context that encases goods, services, roles, functions and ideologies. From this point of view, the importance of having or not having Internet

⁶ A. Colecchia, & A. Wyckoff, *The Economic and Social Impact of Electronic Commerce*. Paris: Organisation for Economic Co-operation and Development, 1999.

⁷ My first book relating to the Internet was C. Crumlish, *A Guided Tour of the Internet*. San Francisco: Sybex, 1995. It came free with my Internet dial-up account, and is typical of the 'user guide' view of the Internet as an ideology free technology. A more recent good example of this type of publication is P. Gralla, *How the Internet Works*. Indianapolis: Que, 2004. Writing in the mid to late 1990s often portrayed this cultural neutral understanding of the Internet. Examples include: R. Hammond, *Digital Business: Surviving and thriving in an on-line World*. London: Hodder and Stoughton Ltd, 1996. D. Northfield, *The Information Policy Maze: Global Challenges National Responses*. Melbourne: RMIT Press, 1999.

access takes on new inflection. Lury has noted that in a consumer culture, the ability of an individual to consume goods and services, as well as how they are provided, defines their social position.⁸ Goods and services delivered through the Internet are also transformed by being accessed through the Internet. Those who access these contents, goods and services, interpret them differently to their analogue alternatives off screen. In reframing access, the term can now be used to convey the ideas, items, and ideologies delivered by the Internet. Such a study produces a more complex view of Internet access than is otherwise acknowledged.⁹

Understanding the Invisible Empire requires more than investigating the Hyper Text Mark-up Language (HTML) of the World Wide Web. This communication medium is best understood in the context of the economic, political and power structures of disadvantage and the exclusion they enable. Marx famously affirmed that ‘The history of all hitherto existing society is the history of class struggle’.¹⁰ The Internet transforms the nature of this struggle. Material wealth and its distribution are not the sole determinates of social positioning. Literacy and social capital are involved. My research project, *The Invisible Empire*, encompasses and describes not only the Internet, but also what the Internet enables and what is denied to those without access. Travels with the (metaphoric) ‘digital flâneur’ reveal that this empire is a complex and fluid structure. Those with access, literacy and resources to access through the screen – the gateway of the Empire – project themselves into the digital

⁸ C. Lury, *Consumer Culture*. Oxford: Polity Press. 1996, p. 43.

⁹ These limitations are particularly observed within the research literature focusing on commerce and technology. To view these restricted definitions, please refer to the following research texts.

J. FitzGerald, *Business Data Communications and Networking*. New York: John Wiley, 2002

D. Chaffey (ed), *Business Information Systems: Technology, Development and Management for the E-Business*. Harlow: Financial Times/Prentice Hall, 2003.

W. Stallings, *data and Computer Communications*. Upper Saddle River, N.J.: Prentice Hall, 2000.

¹⁰ K. Marx & F. Engels, *The Communist Manifesto*. Harmondsworth, England: Penguin Books, 1967. <http://www.anu.edu.au/polsci/marx/classics/manifesto.html> [accessed 26.5.2005].

realm alone at the screen. This does not allow for a shared space for interaction with those denied access by those same conditions. Those without access do not manifest in the digital world. They cannot experience that from which they are excluded, except at the level of metaphor. It is this lack of shared space and perception that renders the Empire invisible.

‘Internet access,’ as a term used in this thesis, refers to the traditional areas of where and how people find computers connected to the Internet and how they use them, but it also takes into account the actual content and services that are utilised through the network. By widening the framing of the Internet, I acknowledge the context in which the Internet manifests. When using this definition, areas such as content provision, regulation and literacy become essential parts of the analysis. In addition, this new understanding of Internet access requires a closer focus on the type of Internet connection that is available to an individual, and that individual’s ability to effectively utilise that connection. When governments place both public and private sector goods in the domain of the Internet, how does government policy and practice work to ensure access to this medium? The answer to such a question is both a determinant and frame for the formulation of social relations in society.

Within this context, my research provides a significant and original contribution to knowledge in this field. The majority of analyses in critical and interpretative Internet Studies have focused on the United States and Europe.¹¹ While there are

¹¹ The scale and range of these studies stressing the United States and Europe, without an awareness of Asian and Pacific sensibilities and histories, are as follows. D. M. Anderson & M. Cornfield (eds), *The Civic Web: Online Politics and Democratic Values*. Lanham, Md.: Rowman & Littlefield, 2003.

-
- C. E. Barfield, G. Heiduk & P. J. Welfens (eds), *Internet, Economic Growth, and Globalisation: Perspectives on the New Economy in Europe, Japan, and the USA*. Berlin and New York: Springer, 2003.
- B. A. Bimber, *Information and American Democracy: Technology in the Evolution of Political Power*. New York: Cambridge University Press, 2003.
- H. Bonfadelli, 'The Internet and Knowledge Gaps: A theoretical and Empirical Investigation', *European Journal of Communication*. 2002, volume 17, issue 1.
- J. Brook & I. A. Boal (ed), *Resisting the Virtual Life: The Culture and Politics of Information*. San Francisco: City Lights, Monroe, 1995.
- B. M. Compaine & S. Greenstein (eds), *Communications Policy in Transition: The Internet and Beyond*. Cambridge Mass.: MIT Press, 2001.
- B. Ebo (ed), *Cyberghetto or Cybertopia?: Race, Class, and Gender on the Internet*. Westport, Conn.: Praeger, 1998.
- M. W. Fishwick, *Probing Popular Culture: On and Off the Internet*. New York: Haworth Press, 2004.
- G. Giacomello, *National Governments and Control of the Internet: A Digital Challenge*. New York: Routledge, 2005.
- E. Giovannetti, M. Kagami & M. Tsuji (eds), *The Internet Revolution: A Global Perspective*. Cambridge: Cambridge University Press.
- I. Goodwin & S. Spittle, 'The European Union and the information society', *New Media and Society*. June 2002, volume 4, number 2.
- M. Goodwin, *Cyber Rights: Defending Free Speech in the Digital Age*. Cambridge, Mass.: MIT Press, 2003.
- W. Herumin, *Censorship and the Internet: From Filters to Freedom of Speech*. Berkley Heights, N.J.: Enslow Publishers, 2004.
- J. Hills, 'Telecommunications and Democracy: The International Experience,' *Telecommunications Journal*. January 1993, volume 60, number 1, pp. 21-29.
- K. A. Hill & J. E. Hughes, *Cyberpolitics: Citizen Activism in the age of the Internet*. Lanham, Md.: Rowman & Littlefield, 1998.
- S. Jones (ed), *Doing Internet Research: Critical Issues and Methods for Examining the Net*. Thousand Oaks, Calif.: Sage Publications, 1999.
- J. E. Katz, *Social Consequences of Internet Use: Access, Involvement and Interaction*. Cambridge Mass.: MIT Press, 2002.
- R. J. Klotz, *The Politics of Internet Communication*. Lanham, Md.: Rowman & Littlefield Publishers, 2004.
- B. G. Kutais (ed), *Internet Policies and Issues*. Commack, New York.: Nova Science, 1999.
- B. Lange & D. Ward, *The Media and Electrons: A Handbook and Comparative Study*. Mahwah N.J.: Lawrence Erlbaum, 2004.
- R. C. Lee & Sau-ling Cynthia Wong (eds), *Asian America.Net: Ethnicity, Nationalism, and Cyberspace*. New York: Routledge, 2003.
- W. H. Lehr & L. M. Pupillo (eds), *Cyber Policy and Economics in an Internet Age*. Boston: Kluwer Academic Publisher, 2002.
- L. Lessig, *Free Culture: How Big Media Uses technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin Press, 2004.
- J. Litman, *Digital Copyright: Protecting property on the Internet*. Amherst, New York: Prometheus Books, 2001.
- G. Lovink, *Uncanny Networks: Dialogues with the Virtual Intelligentsia*. London: MIT Press, 2002.
- R. Marlin-Bennett, *Knowledge Power: Intellectual Property, Information and Privacy*. London: Lynne Rienner, 2004.
- H. Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Mass: Addison-Wesley Pub. Co., 1993.
- J. Samoriski, *Issues in Cyberspace: Communication, Technology, Law and Society on The Internet Frontier*. Boston: Allyn and Bacon, 2002.
- N. Selwyn, S. Gorard & J. Furlong, 'Whose Internet is it Anyway?: Exploring Adults' (Non) Use of the Internet in Everyday Life', *European Journal of Communication*. 2005, volume 20, issue 1.
- P. M. Shane (ed), *Democracy Online: The Prospects for Political Renewal Through the Internet*. New York: Routledge, 2004.
- S. Turkle, *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster 1995.

correlations with access in Australia, there are features unique to the Australian cultural and social environment, as well as physical factors such as geographic separation and the sparse distribution of the population that limit the ability to translate these previous findings into an Australian context. Research on the Internet also has a tendency to date rapidly and much of what has been produced is either irrelevant or misleading due to subsequent changes and developments in technology and policy, including hardware, software and services. Innovative and reflexive research is constantly required to understand and model the changes and challenges in the current context.

To investigate these inequalities, I assume the metaphoric role and function of the digital flâneur. The activity of this research was not only about searching the Web as a digital pedestrian, a vista summoned from the online world. Rather, I walk with purpose through the Invisible Empire of the Internet, traversing on screen and off, making observations, studying inequalities and the boundaries between these two spaces. To enact such a project involves a complex negotiation of research methods and materials. The distinct places and identities that they illuminate are often hidden from the view of the majority on the digital street. By embracing the role of the digital flâneur, I walk along and through the spaces and complexities of this Digital Empire.¹²

V. Vaidhyathan, *The Anarchist in the Library: How the Clash Between Freedom and Control is Hacking the Real World and Crashing the System*. New York: Black Books, 2004.

E. Vartanova, 'Digital divide and the changing political/media environment of post socialist Europe', *Gazette*. October 2002, volume 64, issue 5, pp. 449-465.

B. Wellman & C. Haythornthwaite (eds), *The Internet in Everyday Life*. Oxford: Blackwell Publishers, 2002.

12 There are many different modes and ways of studying the World Wide Web.

Technology (or platform) based research can be seen in publications such as the *Academic Open Internet Journal*. In relation to education, publications such as *International Journal of Educational Technology*, *Journal of Research on Technology in Education* and the *Journal of Education Media* are

The Paris newspaper *Le Flâneur* published May 3, 1848, issued a description of the flâneur's condition and appearance:

To go out strolling, these days, while puffing one's tobacco, while dreaming of evening pleasures, seems a century behind the times. We are not the sort to refuse all knowledge of the customs of another age; but, in our strolling, let us not forget our rights and our obligations as citizens. The times are necessitous; they demand all our attention, all day long.¹³

The function of this old practice in informing a new circumstance is embodied and performed through this doctorate. The strolling with purpose of the digital flâneur in the Invisible Empire tracks the development of the World Wide Web. This behaviour, method and metaphor are fundamentally appropriate: access to this application comes through the use of *browser* software. While other digital pedestrians might use this software to engage in passive observation and undirected wandering,¹⁴ as *Le Flâneur* observed, the digital flâneur is a role that demands a critical eye on the inequalities and disadvantage that is illuminated by their travels.

This wandering and wondering has revealed that the context of access to the Internet has changed. Until recently, the population of the Invisible Empire was booming. An

important. See also M. McPherson & M. Baptista, *Developing Innovation in Online Learning: An Action Research Framework*. London: Routledge, 2004. The World Wide Web is also analysed from both a quantitative and qualitative analysis approach, with research specifically the focus of a number of journals including *Internet Research and Communication Research*. An economics-inflected approach is also analysed in terms of Economics in publications such as *Netnomics – Electronic Research and Electronic Networking* and *Information Economics and Policy*. Society; *Information Society*, *Technology in Society* and *Media Culture and Society*. From a Business perspective; *Journal of Business and Technical Communication*, *The Economic and Social Impact of Electronic Commerce: Preliminary findings and Research Agenda*. Paris: OECD, 1999. E. Coupey, *Digital Business: Concepts and Strategy*. The politics discipline, and its research into the Web is found in *Political Communication*. With a focus on sociological imperatives, *Information Society*, *Technology in Society* and *Media Culture and Society* are the primary journals. Obviously, there is also considerable overlap between many of these areas of enquiry, and journal publications.

¹³ *Le Flâneur*. 3rd May 1848. As cited *Flâneur: Urban Enthusiasms*. <http://www.flaneur.org/flanifesto.html> [accessed 26.5.2005].

¹⁴ R. Burnett & P. D. Marshall, *Web Theory: An Introduction*. London and New York: Routledge, 2003, p. 72.

ever greater proportion of the world's population has gained 'access.' This term is rarely specified or explored. However this growth is levelling off as the Internet market 'matures'.¹⁵ Recent research by the PEW Internet and American Life Project¹⁶ has indicated that this rate of growth has reached an apex and crucially, that those left outside of the Invisible Empire have no desire to gain access.¹⁷ The percentage of the population that is predisposed to gain access to the Internet and the World Wide Web has been saturated. The borders of empire, once easily traversed, are closing on the excluded. Gaining access for the remaining population will require different strategies to those that have served the more empowered classes, groups and communities in gaining Internet access. The invisible nature of the Empire serves to hinder this process, as the empowered and disempowered not only have no dialogue, but no shared place of common digital manifestation. In this context of change, the role of the flâneur, strolling with purpose must – at times – make way for the interventionary intellectual. Antonio Gramsci constructed the organic intellectual as a role where the existing order needed to be contested and the underclass given

15 J. Fan, *U.S. Internet Usage Shows Mature Growth, Forcing Innovation of New Web Offerings*, According to Nielson//Netratings. Nielson//Netratings. <http://direct.www.nielsen-netratings.com/news.jsp> [accessed 24.3.2005].

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

16 Pew Internet and American Life Project. <http://www.pewinternet.org/>
M. Madden & L. Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003.
<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

17 A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

voice and consciousness.¹⁸ In the Invisible Empire, the intellectual is needed not only to translate for the digital underclass but also to act as a light to illuminate the invisible nature of the Digital Empire, and the walls it creates. As this thesis progresses, the movement from flâneur to organic – and interventionist – intellectual becomes overt.

The Invisible Empire has been written with a style to match its subject. Text is deliberately broken up with quotes and images that intrude on the formal flow of the writing. I emulate – through paper and ink – the hyperlinked structure of the Web. This layout is intended to add depth, intertextuality and mixed media to the print, rather than text-based, discourse. The focus is on important passages and precise interpretations without cluttering the prose. Similarly wherever possible, references that are available online are provided,¹⁹ both as Web addresses in the hard copy and as active links in the digital rendering of this dissertation.²⁰ Illustrations and figures where possible have also been taken from Internet links, and as much as possible from collections in the public domain.²¹

The history of the Internet can be tracked using a number of different methods and sources. One of these involves tracking those who have written and spoken about the

18 A. Gramsci, 'The Intellectuals', in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.
<http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

19 Significantly, this desire proves easier to satisfy with the older texts that are no longer subject to copyright than with more recent publications.

20 This analogue hard copy is the examinable form of this thesis. The CD ROM is included to assist examiners in the verification of scholarly protocols. If this thesis was written as a digitized, hypertext format, the mode and structure would be different, while this CD is provided as an appendix it is not offered as an examinable element.

21 This desire to take the potential of mixed media seriously is the justification for many images derived from Wikipedia and other public domain collections. While the scholarly 'value' of Wikipedia is a site of dispute, their image database is a strong resource for this dissertation.

Internet, and who have sought to influence the discourse of sovereignty that regulated the environment. These changes in the position and ideology of commentators track the changing nature of the medium itself. The early history of the Internet is synonymous with the commentary of the technician, knowledgeable in the workings of the hardware and software that drove the network. Subsequent to the growth of the Internet as a medium of mass communication, following the enormous rise in take-up rates through the mid 1990s, this role was usurped by the expert. The expert focused on the application of the Internet and e-commerce applications. Now as Internet penetration rates start to stabilise as the market ‘matures’ and the borders of the Invisible Empire begin to close, the critique of the intellectual becomes a necessary voice in the discourse. The intellectual, building on the knowledge of the technician and the expert focuses on the consequences of the Invisible Empire.

The technicians, or more accurately the technical expert, were the early commentators of the Internet. They were the voice of the early adaptors. They spoke from and about the on screen environment, with the knowledge that access was not universal or even available to a majority of the population. In the pre-World Wide Web Internet environment and before popular operating systems supported Internet connections,²² a highly developed level of ‘wetware’²³ or literacy was required and expected of those with Internet access. These individuals typically did not see this literacy as a problem. Wetware acted as a welcome gatekeeper to the Empire, keeping out those who did share their world-view and experience.²⁴ *The Declaration*

²² Prior to Windows 95, Microsoft operating systems did not support Internet connections.

²³ Wetware is defined and explored further in Chapter Two, ‘The Gates of Empire’.

²⁴ K. Hafner, ‘The Epic Saga of the Well’ *Wired Magazine*, May 1997.

http://www.wired.com/wired/archive/5.05/ff_well_pr.html [accessed 16.6.2004].

of the *Independence of Cyberspace*²⁵ is a document that sets those on the Internet aside from others. Much like a Nation State,²⁶ it does not seek to enlarge the number of digital citizens. Rather, it addresses the concerns and demands of those who already possess that citizenship.

A Declaration of the Independence of Cyberspace²⁷

by John Perry Barlow <barlow@eff.org>

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the global social space we are building to be naturally independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.

Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours. We did not invite you. You do not know us, nor do you know our world. Cyberspace does not lie within your borders. Do not think that you can build it, as though it were a public construction project. You cannot. It is an act of nature and it grows itself through our collective actions.

You have not engaged in our great and gathering conversation, nor did you create the wealth of our marketplaces. You do not know our culture, our ethics, or the unwritten codes that already provide our society more order than could be obtained by any of your impositions.

You claim there are problems among us that you need to solve. You use this claim as an excuse to invade our precincts. Many of these problems don't exist. Where there are real conflicts, where there are wrongs, we will identify them and address them by our means. We are forming our own Social Contract. This governance will arise according to the conditions of our world, not yours. Our world is different.

Cyberspace consists of transactions, relationships, and thought itself, arrayed like a standing wave in the web of our communications. Ours is a world that is both everywhere and nowhere, but it is not where bodies live.

We are creating a world that all may enter without privilege or prejudice accorded by race, economic power, military force, or station of birth.

²⁵ J. Barlow, *A Declaration of the Independence of Cyberspace*.

<http://www.eff.org/~barlow/Declaration-Final.html> [accessed 26.8.2003].

²⁶ The construction of the Nation State and its interface with the Invisible Empire is examined more closely in subsequent chapters.

²⁷ This was written in response to the *Telecom Reform Act*, 1996 passed by the United States Congress. J. Barlow, *A Declaration of the Independence of Cyberspace*.

<http://www.eff.org/~barlow/Declaration-Final.html> [accessed 26.8.2003].

We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity.

Your legal concepts of property, expression, identity, movement, and context do not apply to us. They are all based on matter, and there is no matter here.

Our identities have no bodies, so, unlike you, we cannot obtain order by physical coercion. We believe that from ethics, enlightened self-interest, and the commonweal, our governance will emerge. Our identities may be distributed across many of your jurisdictions. The only law that all our constituent cultures would generally recognize is the Golden Rule. We hope we will be able to build our particular solutions on that basis. But we cannot accept the solutions you are attempting to impose.

In the United States, you have today created a law, the Telecommunications Reform Act, which repudiates your own Constitution and insults the dreams of Jefferson, Washington, Mill, Madison, DeToqueville, and Brandeis. These dreams must now be born anew in us.

You are terrified of your own children, since they are natives in a world where you will always be immigrants. Because you fear them, you entrust your bureaucracies with the parental responsibilities you are too cowardly to confront yourselves. In our world, all the sentiments and expressions of humanity, from the debasing to the angelic, are parts of a seamless whole, the global conversation of bits. We cannot separate the air that chokes from the air upon which wings beat.

In China, Germany, France, Russia, Singapore, Italy and the United States, you are trying to ward off the virus of liberty by erecting guard posts at the frontiers of Cyberspace. These may keep out the contagion for a small time, but they will not work in a world that will soon be blanketed in bit-bearing media.

Your increasingly obsolete information industries would perpetuate themselves by proposing laws, in America and elsewhere, that claim to own speech itself throughout the world. These laws would declare ideas to be another industrial product, no more noble than pig iron. In our world, whatever the human mind may create can be reproduced and distributed infinitely at no cost. The global conveyance of thought no longer requires your factories to accomplish.

These increasingly hostile and colonial measures place us in the same position as those previous lovers of freedom and self-determination who had to reject the authorities of distant, uninformed powers. We must declare our virtual selves immune to your sovereignty, even as we continue to consent to your rule over our bodies. We will spread ourselves across the Planet so that no one can arrest our thoughts.

We will create a civilization of the Mind in Cyberspace. May it be more humane and fair than the world your governments have made before.

Davos, Switzerland
February 8, 1996

The voice of the technician, given this assumed (and advanced) level of wetware and cultware, is directed primarily at hardware and software issues. The voice of the early adaptors has left an impact on the discourses that followed. This residue can be seen as it informs the debate about the Universal Service Obligation (USO) that specifies the hardware requirements to deliver bits at a suitable speed. David Silver tracked this phase in Internet development, analysing the analysis that occurred off screen about the Internet. He characterises this stage as ‘Popular Cyberculture’. Analysis of the Internet is primarily journalistic, introducing a non-technical audience to the technical environment of the pre-World Wide Web digital environment. Significantly, the metaphor that came to be the dominant descriptor of the Internet at this point was the ‘frontier’.²⁸

The Web reduced the level of technical knowledge required to access the technology and enhanced the utility of the Internet. This was a driver for the massive growth the medium experienced from the mid-1990s.²⁹ The ideology of the early adaptors, as promoted in commentary by the technician ensured that the software required to enable the Web should be free and easily available. This in turn leads to the uptake of the medium by the wider population. The gate previously locked by the literacy requirements for entry was opened to greater numbers of people. The technicians lost their monopoly in the Invisible Empire.

28 D. Silver, ‘Introducing Cyberculture – Looking Backwards, Looking Forwards: Cyberculture Studies 1990-2000’, in D. Gauntlett, *Web.Studies*. New York: Oxford University Press, 2000. <http://www.com.washington.edu/rccs/intro.asp> [accessed 10.7.2005].

D. Healy, ‘Cyberspace and Place: the Internet as Middle Landscape on the Electronic Frontier’, in D. Porter (ed), *Internet Culture*. New York: Routledge, 1997.

29 R. Burnett & P. D. Marshall, *Web Theory: An Introduction*. London & New York: Routledge, 2003.

D. Gauntlett, *Web.Studies*. New York: Oxford University Press, 2000.

With the wide take-up of the Internet, a new type of commentator developed. While most experts previously were early adapters, the ideology of the Internet as a free shared space was abandoned for the ideology of capitalism and the market. The voice of the expert was at its most prominent peak during the Internet boom years at the end of the twentieth century during the ‘dot com bubble’³⁰ of tech stocks. Their dogma focused on the enormous potential of the Internet and drove the dot com stock market bubble and subsequent collapse at the end of last century.³¹ There was less focus on access, except in terms of potential online consumers yet to be active participants in the new economy.



Figure 2
The Dot Com ‘Bubble’ in Technology Stock Prices, 2000
http://en.wikipedia.org/wiki/Dot_Com_Bubble
 [accessed 16.7.2005]

30 The dot com bubble emerged in the late 1990s. The NASDAQ exchanges value peaked on the 9th of March 2000 at 5048.26, a value that had more than doubled in the preceding fourteen months. It declined just as quickly, by October 2002, the market had lost 78% of this value to close at 1114.11 ‘Looking back on the crash’ *The Guardian*. 10th March 2005.

31 ‘The dot.com bubble bursts’ *New York Times*. 24th December 2000.

N. Munro, ‘When the Dot-Com Bubble Burst’, *National Journal*. 10th February, 2001, volume 33, issue 6.

The expert is also tethered to the ‘ideology of technology.’ Burnett and Marshall have pointed to a problem with the reasoning behind the adoption of new technology, and the World Wide Web in particular:

An ideology that is concerned with technology therefore makes any new technology not only natural and normal for the culture, but also what is needed to make the society better. In other words, an ideology of technology creates a desire for the cultural transformation promised by technology. It serves to reduce the public debate about the technology and shift most discussion to a functional level of how expand, implement and integrate the new technology into our everyday lives. Critics have called this ideology a form of ‘technological rationality’ (Marcuse 1964; Habermas 1975) or ‘instrumental reason’ (Horkheimer and Adorno 1987) where there is a simple means-end approach to its implementation. For the Web, debate might be reduced to how do we get greater numbers of people online rather than what kind of content or structures will be available online.³²

Questions of what happens to those without access are not disclosed. Antonio Gramsci proposed that there are people who specifically perform the function of intellectuals within society.³³ The expert filled this position. Occupying the role of Gramsci’s ‘natural intellectual’, they served the role of perpetuating and supporting the existing order. Gramsci proposed a second type of intellectual, the ‘organic intellectual’, whose role was to critique and intervene in the existing order. This is the place now needed to be filled in this analysis by the (digital) intellectual.

³² R. Burnett & P. D. Marshall, *Web Theory: An Introduction*. London & New York: Routledge, 2003, p. 9.

The references referred to in the text:

J. Habermas, *Legitimation Crisis*. Boston: Beacon Press, 1975.

M. Horkheimer & T. A. Adorno, *The Dialectic of Enlightenment*. New York: Continuum, 1987.

H. Marcuse, *One Dimensional Man: Studies in the Ideology of Advanced Industrial Society*. Boston: Beacon Press, 1964.

³³ A. Gramsci, ‘The Intellectuals’, in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.

<http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

For Silver, this second stage of intellectual analysis of the Internet was characterised as ‘Cyberculture Studies’.³⁴ Some of this writing evolved from the previous journalistic discourse, and Silver singles out the work of Julian Dibbell, and his analysis of the ‘Rape in Cyberspace’ that occurred in the LambdaMOO multi-user domain,³⁵ that introduces the concepts of digital citizenship in Chapter Four of this thesis. He also selects Howard Rheingold’s *Virtual Communities*, and Sherry Turkle’s *Life on the Screen*, as pivotal texts to have come from this period.³⁶

By the late 1990s, Silver noted, analysis moved to Critical Cyberculture. While Cyberculture Studies focused on the development of online communities, critical Cyberculture Studies sought, rather than to merely describe cyberspace, to contextualise and critically examine the on screen environment.³⁷ Concerns with access and the digital divide also become a focus of academic research at this point.³⁸

At this stage, the Internet was of a significantly different order than today’s mid-

34 D. Silver, ‘Introducing Cyberculture – Looking Backwards, Looking Forwards: Cyberculture Studies 1990-2000’, in D. Gauntlett, *Web.Studies*. New York: Oxford University Press, 2000. <http://www.com.washington.edu/rccs/intro.asp> [accessed 10.7.2005].

35 J. Dibbell, ‘A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society’, *The Village Voice*. 23rd December 1993.

36 H. Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Mass: Addison-Wesley Pub. Co., 1993.

S. Turkle, *Life on the Screen: Identity in The Age of The Internet*, New York: Simon & Schuster 1995.

37 D. Silver, ‘Introducing Cyberculture – Looking Backwards, Looking Forwards: Cyberculture Studies 1990-2000’, in D. Gauntlett, *Web.Studies*. New York: Oxford University Press, 2000. <http://www.com.washington.edu/rccs/intro.asp> [accessed 10.7.2005].

38 P. Norris, *Digital Divide: Civic Engagement, Information Poverty, and The Internet Worldwide*. Cambridge: Cambridge University Press, 2001.

J. McConnaughey, D. W. Everette, T. Reynolds & W. Lader (eds), *Falling Through the Net: Defining the Digital Divide*. Washington: U.S. Department of Commerce, 1999.

L. J. Servon, *Bridging the Digital Divide: Technology, Community and Public Policy*. Malden, MA.: Blackwell Publishers, 2002.

A. S. Hammond, ‘The Telecommunications Act 1996: Codifying the Digital Divide’, *Federal Communications Law Journal*. December 1997, volume 50, number 1, pp. 179-214.

E. B. Parker, ‘Closing the Digital Divide in Rural America’, *Telecommunications Policy*. May 2000, volume 24, issue 4, p. 281.

J. Brown, ‘The Digital Divide’, *Civil Rights Journal*. Fall 1999, volume 4, issue 1.

D. B. Hindman, ‘The Rural-Urban Digital Divide’, *Journalism & Mass Communication Quarterly*. Autumn 2000, volume 77, issue 3.

B. Hecht, ‘Bridging the digital divide’, *Journal of Housing and Community Development*. March-April 2001, volume 58, issue 2.

2000s. Internet penetration was still rapidly increasing, and the economics of electronic commerce was undergoing massive growth and contraction associated with the 'bubble' in technology stock prices. The Internet has now evolved. The 'bubble' is now in Internet time a distant memory, and more importantly Internet penetration throughout society has peaked.³⁹ Those on either side of the screen are fixed in their position. To create movement at this point requires incisive intervention.

Summoning the digital intellectual represents a relatively new role in Internet commentary. Conditions at the colonial periphery are often overlooked, irrelevant or redundant at the core of empire. Without a voice to translate the experiences of the colonised to those at the core, and occupying the role of an advocate for change, the conditions of the remote and disempowered are perpetuated. As the natural growth of the Internet slows as the market 'matures' those who fall outside the requirements of access will be increasingly excluded, creating a digital underclass.⁴⁰ It is for this group that the intellectual seeks to intervene: to act as a translator across the gates of Empire between the digital citizen and those who are excluded from the Invisible Empire.

39 A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

H. Bonfadelli, 'The Internet and Knowledge Gaps: A theoretical and Empirical Investigation', *European Journal of Communication*. 2002, volume 17, issue 1.

40 G. Parayil, 'The Digital Divide and Increasing Returns: Contradictions in Information Capitalism', *Information Society*. 2005, volume 21, issue 1.

Resistance within the Invisible Empire is a founding ideology, tracing its origin back to the cyberpunk literature that predicted the rise of the network.⁴¹ However this was a resistance to authority, both on and off screen, by the highly literate on screen, the hacker and the cyber-jockey. This thesis addresses resistance to the Invisible Empire, not through a Luddite rejection of technology, but by examining the conditions at the periphery of empire, the impacts of digital colonisation, and how this potential exclusion can be overcome. Debates around digital literacy have been deliberately removed or bypassed to narrow discussion about the future of the digital environment and focus on the material commodities necessary to gain access and the potential for more online consumers. The policy focus is placed on what can easily be converted into currency.⁴² An understanding of the manifestation of class, race, regionalism and age is required to intervene in breaching the ‘gap’ of translation to the digital subaltern. Literacy must be created in order to allow access to software and hardware for those for whom technological and cultural literacy is a barrier. The intellectual must possess multiple literacies to translate across class, race, ethnicity, age, gender and is in a position to talk both to and for the digital subaltern. To translate for those without a voice requires the literacy to write and create for the appropriate and changeable cultural environment. The intellectual fills the role of Gramsci’s organic intellectual whose place is to challenge the existing order and to speak for the underclass.⁴³ It is the role of the intellectual in society to translate

⁴¹ W. Gibson, *Neuromancer*. New York: The Berkley Publishing Group, 1984.

N. Stephenson, *Snow Crash*. New York: Bantam Doubleday Dell Publishing Group, 1992.

⁴² P. Bourdieu, ‘The Forms of Capital’ translated by R. Nice. http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98.

⁴³ Gayatri Chakravorty Spivak warns of the dangers inherent in trying to speak for the subaltern, of standing in the way, as well as in the place of the underclass when trying to speak on their behalf. The role of the Intellectual and the Subaltern is discussed further in Chapter Eight, ‘The Digital Subaltern’. The pivotal reference in this area, at this early stage of the thesis, is G. C. Spivak, ‘Can the Subaltern

across borders and gateways that sets them aside from the expert, as an advocate for change and intervention.

It has now reached the stage, not only in the history of the Internet but also the World Wide Web, that intervention is required. This doctoral thesis diagnoses the nodes and structures of digital and analogue inequality. The role of critical and interpretative Internet Studies, inflected and informed by Cultural Studies approaches and theories, offers methods for intervention, providing contextual understanding of the inflections of power and social justice in a digital environment. In enacting this project, familiar tropes and theories from Cultural Studies are deployed. Particular attention is placed on the insights of postcolonial theorists. The *Invisible Empire*, following the ideology of the digital intellectual, seeks to act as a translation between the digital subaltern and the digital citizen. The research methodology follows the tradition of Cultural Studies and Postcolonial Studies. This thesis seeks to bring analysis to the existing information and primary research that currently exists in the field. Similarly, it seeks to apply pre-existing off screen theory and methodology to the Invisible Empire, illuminating how these theories can be reapplied to the digitised environment.

My research traces key concepts and identities through time, tracking their development to illustrate how their manifestation within the *Invisible Empire* can represent both a radical transformation and a manifestation of continued trends over time. Much of the philosophical and historical perspective comes from a European perspective. This is partly driven by the philosophical historical bias that underpins

Speak', in C. Nelson & L. Grossberg (eds), *Marxism and the Interpretation of Culture*. London: Macmillan Education, 1988.

the Internet as an essentially Western construction,⁴⁴ and also the influence of these ideas through the colonial domination of western power and thought, formally up until the end of the Second World War, and enduring in the post colonial condition. That the writer of this research is derived from Australia adds complexity and breadth to this investigation. The difficulties and inequalities forged through colonisation, and perpetuated on Indigenous citizens and a landscape unconducive to the easy development of digital architecture and infrastructure, add grit to this sojourn through the edges of empire.

Walking with the digital flâneur along the borders of the Invisible Empire takes this dissertation through a journey along the digital boulevard. In Part I, the first three chapters focus on the foundations and construction of the Invisible Empire. Chapter One, 'A History of Exclusion: Telecommunications and the Universal Service Obligation in Australia', begins with an examination of the history of telecommunications access in Australia, specifically tracking the development of the Universal Service Obligation, the regulations governing the distribution of access to what is considered a basic and required level of access to telecommunications for all Australian citizens. Taking as its starting point the tragic story of the death of the ten year old Sam Boulding, this trajectory illustrates the changing understanding of what constitutes the essential level of telecommunication access and the government's place in making this available. On the edges of the telecommunications network

44 In the Web's earlier incarnations, this libertarian politics was derived from the early adopters who were English-speaking United States writers holding libertarian politics. Weinberger traces these philosophical linkages in *Small Pieces Loosely Joined: A Unified Theory of the Web*. D. Weinberger, *Small Pieces Loosely Joined: A Unified Theory of the Web*. Cambridge MA: Perseus Books Group, 2003. See also: A. Leoussi, 'IT in Western Culture: A New Technology with Ancient Roots', *Knowledge Technology & Policy*. Summer 2000, volume 13, issue 2. The increasingly post colonial nature of the Internet as it evolves from this perceived Western origin is investigated in Chapter Eight, 'The Digital Subaltern'.

where the distribution of individual household phone lines do not reach, access is provided through public telephones, or is absent. This provides a guide for where to look for the digital underclass in Australia, the digital subaltern. This background in telecommunications provides a guide to the future direction of how access is distributed in relation to the Internet.

In Chapter Two, 'The Gates of Empire: Internet Access', focus turns to the construction of Internet Access. This examination focuses specifically on the Internet and the Invisible Empire, examining how the gateways to the Empire – the screens through which the Internet is activated – are constructed from a matrix of hardware, software, wetware and cultware. This chapter unpicks the generalised notions of access, exploring the requirements to ensure and build access, and focusing on the applications of access. Each person accesses these gateways alone, and this will have consequences. There is no shared space where the excluded and the digital citizen simultaneously manifest.

Chapter Three, 'Networks and Digitisation', continues the development of the matrix of access, evoking the interplay of hardware, software, wetware and cultware and the impact on network utility: the value of the Internet network available at any point of access. The consequence of the growth in a value of networks proportional to each user, as set forth in Metcalf's law,⁴⁵ and the growth in the computing power of hardware, a consequence of Moore's law,⁴⁶ can be seen to parallel the growth in the Internet in general and specifically since the development of the World Wide Web.

⁴⁵ G. Gilder, 'Metcalf's Law and Legacy', *Forbes ASA*, 13th September 1993. This is explored in more detail in Chapter Three, 'Networks and Digitisation'.

⁴⁶ G. Moore, *Electronics*, 19th April 1965, volume 38, number 8.
www.cs.ucsb.edu/~arch/cs254/papers/moorepaper.pdf [accessed 23.4.2005].

This chapter addresses some drivers of growth and the rationalization for the tapering of penetration, while also tracing the factors that limit Internet access, from hardware and software, to wetware and cultware. The process of digitisation, of entering the Invisible Empire, is transformative. Goods, services, and value manifest differently through the gates of Empire. This chapter monitors these transformations.

Part II of this doctoral thesis turns to the on screen digitised environment. Chapter Four, 'The Digital Citizen', examines the self and citizenship and how these are transformed when taken from the analogue world and reconstructed on screen. The role of the non-citizen, both the digital deviant who fails to meet the responsibility of citizenship, and the digital underclass, or those who do not meet the requirements of citizenship, are highlighted in this chapter and feature in the analysis to follow. Chapter Five, 'Digital Sovereignty', traces the trajectory of sovereignty and its relationship to the control of the production and distribution of information. In this context, and inspired by Benedict Anderson's landmark *Imagined Communities*,⁴⁷ I specifically examine the role of the *Bible* as a text of sovereignty. This discussion is then used to inform the complex construction of digital sovereignty as a discourse of sovereignty. In the digital environment, sovereignty is transformed. Without the monopoly of legitimate use of violence traditionally represented by sovereignty, the discourse is fickle and subject to reinterpretation and change at each manifestation.

Having tracked the construction of the Invisible Empire via the screen in Part II, Part III of this thesis then pushes through the permeable matrix, stressing the consequences of the Invisible Empire as it interfaces with the off screen, analogue

⁴⁷ B. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, Revised Edition. London & New York: Verso, 1991.

world. Each person accesses the Internet alone at the screen. The consequences of this isolated gateway are the focus of this analysis. Chapter Six: 'Core and Periphery: The Digital Empire', investigates this construction from the core, how the Invisible Empire, following in the steps of preceding imperial powers, crosses the borders of analogue Nation States and confuses old understandings of sovereignty and citizenship. The Invisible Empire creates its own core and peripheral relationships both within nations and across national borders. While some relationships perpetuate and enhance existing inequality, others create new barriers and borders that are not as easily understood through analogue geography. Chapter Seven investigates resistance to this imperial colonisation. As the title suggests, 'Resistance and the Nation State' examines the role of the Nation State as a place where resistance to imperial domination has historically been activated, and how this construct can potentially be used as a site of resistance to the digital colonization of the Invisible Empire.

Chapter Eight's work on 'The Digital Subaltern' shifts the perspective and direction of the doctorate's research trajectory. Rather than the core of the Invisible Empire, this chapter looks at the consequences of the Empire for the periphery, those who are increasingly locked out of this new structure. In this context, the potential for intervention, to eliminate or temper the level of exclusion experienced by the subaltern, becomes a focus. The Invisible Empire itself becomes postcolonial. The core fragments as the Internet incorporates new languages and cultural practices as its population grows beyond its English-speaking origins. In this context, the potential intensifies for the digital subaltern to be rendered further invisible and marginalised. The role of the digital flâneur, strolling with purpose, is set aside and

the intellectual acting as a translator and advocate for change must take its place. This leads to the conclusion of the thesis. *The Intellectual* is a call for a proactive and interventionist role to be more widely embraced.

As the penetrative growth of the Internet tapers, the once permeable walls of empire become harder to transverse for those locked in the periphery. The Invisible Empire cannot be seen from outside its gates, and does not see those at the periphery. Without intervention these barriers and the disadvantage they represent will become further entrenched and perpetuated. An understanding of class, race, regionalism and age is required to intervene in breaching the 'gap' of translation to the digital subaltern. Literacy must be created in order to allow access to software and hardware for those for whom technological and cultural literacy is a barrier. For the intellectual, an understanding of cultware provides the literacy to engage with the cultural difference manifest in class, race ethnicity, age and gender required to talk to the digital subaltern. To speak for and to those without a voice requires the literacy to write and translate between cultural environments. Such an initiative, while politically and theoretically ambivalent, is necessary. Debates around digital literacy have been deliberately removed or bypassed to narrow the debate about the future of the digital environment. When talking about the digital future, the concept of culture, class, race and age is displaced from the analysis. The role for the intellectual then becomes to re-establish this discourse, to breach this gap in the analysis, and to speak for the digital subaltern.

While this research concludes with a discussion of the consequences of colonization, it is this structure that also informs its beginning. Australia is a former settler colony

of the British Empire. It is in this context that telecommunications services were first delivered, and it is in the continuing postcolonial environment in this country that those services, while now highly evolved from the early telegraph services, are now denied to many of the colonised descendants of the original inhabitants. These issues commence the journey through the Digital Empire, being the focus of the next chapter, 'A History of Exclusion: Telecommunications and the Universal Service Obligation in Australia'.

In 1993, Howard Rheingold's *The Virtual Community: Homesteading on the Electronic Frontier*,⁴⁸ from which this thesis partly derives its name, was first published. This book provided an early and optimistic overview of the potential of virtual communities enabled by the pre-web Internet. Its title alludes to the excitement and potential of the settler in the new land, on the edge of the known world. My research follows this discourse and metaphor through to its colonial consequences. The exploitation and dispossession inevitably follows the annexation of newly discovered 'foreign lands.' The consequences on original, analogue inhabitants call for a re-examination of the past and a new understanding of the present. Exploration and settlement and the excitement of the new must now give way to colder analyses of the effect of imperial expansion on the dispossessed. The digital subaltern, locked outside the gates and walls of the Invisible Empire will remain colonised and dispossessed, without intervention. This divide is different to what has transpired in the analogue world as it cuts both across and within national boundaries. The Nation State was the traditional site used to mobilise resistance to colonisation. The former tool of colonial oppression is reinterpreted by the colonised

⁴⁸ H. Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Mass: Addison-Wesley Pub. Co., 1993.

as a space for resistance. The Invisible Empire creates a new type of colonial oppression, and it is possible that the Nation State, while in many ways threatened by the transnational nature of the Invisible Empire, can once again be used to facilitate resistance. Border protection in this context is twisted and inverted. Rather than focus on the borders of the state as a point at which the outside must be kept at bay, border protection on the electronic frontier must look inwards to address shortcomings in the matrix of access and literacy, in particular cultware and wetware to allow for citizens to cross through the gateways of Empire. In this context, the Nation State is mobilised to embrace rather than reject the influence of the core, and act as a space where translation can occur to facilitate access for the digital subaltern.

Chapter 1

A History of Exclusion: Telecommunications and the Universal

Service Obligation in Australia

No Man is an Island, entire of itself; every man is a piece of the Continent, a part of the main; if a clod be washed away by the sea, Europe is the less, as well as if a promontory were, as well as if a manor or thy friends or of thine own were; any man's death diminishes me, because I am involved in Mankind; And therefore never send to know for whom the bell tolls; It tolls for thee.

John Donne, Meditation XVII.

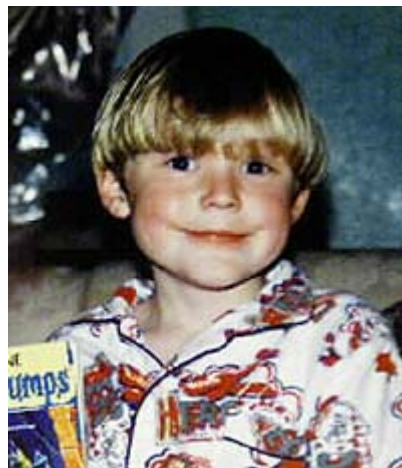


Figure 3

Sam Boulding (1992-2002)

<http://www.smh.com.au/articles/2003/07/09/1057430258781.html>

[accessed 6.7.2005]

The ability for citizens to communicate with each other and the state is an enduring tenet of democracy. In a country such as Australia, with its relatively sparse and widely dispersed population, the ability to link the citizenship remotely through technology helped create a sense of the nation as a whole when the individual colonies united at the time of federation.¹ The Universal Service Obligation is the mechanism and ideology that ensures every Australian is linked to every other through the telephone network. However the system is not without its flaws. There are serious implications for those who fall outside the 'Universal' ability to communicate.

On the 6th of February 2002, ten-year-old Sam Boulding died of an asthma attack that occurred at his home, an isolated property in Kergunya in northeast Victoria. His mother Rose Boulding who is blind was unable to call for help because her phone was not working despite having travelled to a public payphone to ask Telstra to repair it ten days previously.² Her partner ran to a neighbouring property to call for an ambulance, and they eventually drove to a nearby post office to again call for help and meet the ambulance after the child had collapsed. The mother in question, being blind, required more help than most, particularly in light of her son's asthmatic condition. Telstra admitted that it had failed to fix her broken phone line in a timely manner despite her request that they do so (which she was only able to make with considerable effort by travelling to a public telephone in a nearby town).³

¹ Australian became a single federal nation on January 1, 1901.

² 'Fed: Switkowski promises on boy's death are just "platitudes": union', *AAP* 14th March 2002.

³ Price Waterhouse Coopers, *Report to Telstra Corporation Limited on improvements required to the provision of priority service based on an examination of the facts surrounding the maintenance and supply of services to Ms Rose Boulding*. March 2002.

This case is a tragedy but it does highlight some important arguments about telecommunications service in Australia, and specifically what is considered a basic level of acceptable service. Access to essential services is made through the telephone. In this case the ‘essential’ service was not just an ambulance, although this was the most crucial, but also not without some sense of irony, a telephone was needed to report a fault in the telephone service. This access via the phone to these services is of greater importance in rural areas where there are fewer alternative forms of access to services that are provided through the telephone network,⁴ and fewer alternate locations to source access to the telephone network, such as public telephones.⁵ Private telephone lines and public payphones provide access to the same network in different ways. Yet issues of access are qualitatively different in both locations and forms.

The fact that the family eventually travelled to a post office to access a telephone and to meet the ambulance also serves to illustrate the role of the post office as both a point of access to public services, and also its historic link to telecommunications in Australia. Rose Boulding’s disability also highlights questions of access to the telephone network for those with disabilities and whose responsibility it is to provide these services. Finally, the perceived role of Telstra, a private company, albeit still half owned by the Australian Government, to provide telephone services to the Boulding family, and their failure to provide timely repairs raises the question of who bears social and economic responsibility for access to the telephone network in Australia and how services are delivered. There are a number of telecommunications

⁴ Examples include banking services, access government services and information.

⁵ B. Katter ‘There’s no way a privatised Telstra will maintain services to remote areas’, *Online Opinion*. 21st July 2003. <http://www.onlineopinion.com.au/view.asp?article=560> [accessed 16.5.2005].

carriers within Australia who can provide voice telephony services. Yet Telstra's place in this group gives it special responsibility. This doctoral research grants an expansive function to the role played by both government and private enterprise in providing these services and how is this regulated.

This chapter examines the Universal Service Obligation: the mechanism through which the Australian Government requires telecommunications companies – primarily Telstra – to provide a minimum level of telephone service to all Australians. Exactly what that basic service consists of, and how, and at what level it is provided is a subject of debate that centres on how the words 'universal', 'service' and 'obligation' are interpreted and defined. This investigation of the Australian situation is complemented by an examination of overseas models, particularly the United States. However Australia's situation is not reliably analogous with many of its OECD counterparts, not to mention significantly different from developing countries, which have comparatively immature economies, and less developed communications infrastructure. The relatively sparse population spread over a large geographic area is a particularly challenging environment for telecommunications service in Australia, especially with regard to maintaining services to remote and isolated small communities as opposed to the populous centres around the cities of the country's eastern seaboard. Many of these communities would be difficult if not impossible to provide communications services to without some form of government intervention. There are insufficient economic drivers for services to be delivered profitably or affordably.

Through the Universal Service Obligation or USO, the federal government in Australia facilitates access to telephony services across the country, both in areas of geographic isolation and/or low population density, as well as those in a more economically attractive urban environment where there still may exist other impediments to access. Currently the Universal Service Obligation for a particular area is provided by a Universal Service Provider⁶ and the funding for this service comes from a levy charged to telecommunications companies providing profitable services in other areas in a form of government sponsored cross subsidisation.⁷ Currently, Telstra is the company chosen to provide these services to all regions of Australia, however this is likely to change as more independent designated 'USO areas' are put out to tender.

'Telephony services,' as defined through the current USO regime, consist of access to the 'standard telephone service' both through a private domestic or business connection, and access to public payphones. The standard telephone service is guaranteed through the Universal Service Obligation regardless of physical location, although the time taken to provide the service once a request is made will vary with the level of isolation of the location that requires the service. In the most favourable of circumstances, that is, set in an urban area where there is ready access to existing infrastructure, Telstra will install a new phone connection within five working days. Within the most difficult category of a remote area, without ready access to existing infrastructure, Telstra guarantees connection within six months, or 130 working

⁶ K. Jackson, *The Telecommunications Universal Service Obligation*. Canberra: Parliament of Australia, Australian Parliamentary Library, 26th September 2000.
<http://www.aplh.gov.au/library/intguide/SP/uso.htm> [accessed 20.7.2005].

⁷ This levy is charged on all telecommunications services, rather than just long distance calls, as is the case in the United States.

days. These times are doubled when the service is a public payphone, rather than a private line.⁸ This guarantee is also dependent on whether a connection is for a home or at a place of work, both of which are tightly defined in Telstra's policy documents that respond to its USO obligations.⁹ While this is the current legislated Universal Service Obligation in Australia, this definition has evolved dramatically over the century since federation. Technology has both a history and context. Too often changes in law and organizational culture trail behind these social transformations.

History of Telecommunications in Australia and the Universal Service Obligation

The first telephone exchange in Australia was opened in Melbourne in 1880 with 23 subscribers. This exchange was taken over by the Victorian Government in 1887, at which time it had more than 1000 subscribers.¹⁰ In 1901, the first year of federation, the new Australian Government passed the *Post and Telegraph Bill 1901*. In this Bill, telephony was made the responsibility of the Postmaster-General's Department (PGD).¹¹ Section 69 of the *Australian Constitution* deals specifically with the handover of telecommunications regulation and infrastructure from individual states, who were colonies until that point in time, to the federal government. At this time the

⁸ Telstra's *Universal Service Obligation Standard Marketing Plan*.

http://www.aca.gov.au/telcomm/universal_service_regime/mp.rtf [accessed 19.11.2003], p. 12. Note these times specifically preclude a number of unusual or exceptional circumstances that might modify these time lines including environmental impact, natural disasters, vandalism etc.

⁹ Telstra's *Universal Service Obligation Standard Marketing Plan*.

http://www.aca.gov.au/telcomm/universal_service_regime/mp.rtf [accessed 19.11.2003].

¹⁰ 'Sensis Company History',

http://www.sensis.com.au/Internet/about/company_history/about_companyhistory.jhtml [accessed 21.10.2003].

¹¹ The Federal Government is granted the power to make laws with respect to "Postal, telegraphic, telephonic, and other like services" in section 51 (v.) of the Australian Constitution.

national telephone system had a total of 33,000 subscribers.¹² Today there are over 10.2 million subscribers.¹³ While there was no mention of any form of Universal Service Obligation in the Bill, the formation of the PGD promoted debate on this issue. Specifically, the question of whether the department should run as a 'commercial concern', as favoured by the Postmaster-General James Drake, or if the department should run at a loss – with the balance to be recovered from general revenue – in order to better provide 'services to the bush'.¹⁴ While it was the Postmaster-General's position which prevailed, the spread of telecommunications across the country – particularly to rural and remote areas, rather than just the more profitable urban areas of the eastern seaboard – does indicate that some form of geographical universal service, was seen as an implied mission of the PGD, as it related to telecommunications.¹⁵ There was also cross subsidisation within the department from the postal service to the telephone service and then later on the reverse.¹⁶ Initially the PGD's role in telecommunications focused primarily on the telegraph service, with the Pacific Cable linking Australia to North America coming online in 1902. The official handover to the new federal public service by former colonial administrations on 1 March 1901 was celebrated with the simultaneous singing of *God Save the King* by staff in the PGD offices in each state capital, which was coordinated through telegraph services.

12 Perth, the capital of Western Australia, would still not join the national network until the end of 1930, ironically as John Forrest the first Australian Postmaster-General was a Western Australian and former premier of that state (although he only held the position for two month before moving to defence following the death of James Dickson just two weeks into the inaugural administration, which given Forrest's strong views against the federalisation of communications services in the first place, may have aided the development of the PGD).

13 *Telstra's Universal Service Obligation Standard Marketing Plan*, p. 9.

http://www.aca.gov.au/telcomm/universal_service_regime/mp.rtf [accessed 19.11.2003].

14 A. Moyal, *Clear Across Australia: A History of Telecommunications*. Melbourne: Nelson, 1984.

15 A. Moyal, *Clear Across Australia: A History of Telecommunications*. Melbourne: Nelson, 1984.

16 G. Goggin & I.R. Wilson, *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993.

In 1946, responsibility for telecommunications was split between the Postmaster-General's Department and the newly established Overseas Telecommunications Commission. The OTC was made responsible for international telecommunications services in and out of Australia, while the PGD was responsible for telecommunications services within Australia, and consequently how access to domestic and international services would be distributed.¹⁷ In 1975, the PGD was disbanded and the Australian Telecommunications Commission – trading as Telecom – was formed with the *Telecommunications Act 1975*. Telecom was given responsibility for domestic telecommunications services. While there was no explicit obligation under the universal service banner placed on this new entity, the Act specified that Telecom would:

Best meet the social, industrial, and commercial needs of the Australian people for telecommunications, and shall, so far as it is, in its opinion, reasonably and practicable to do so, make its telecommunications services available throughout Australia for all people who reasonably require those services (section 6 (1)).

The special needs for telecommunications services for Australian people who reside or carry on business outside the cities (section 6 (2) (b) iii).¹⁸

The newly independent statutory authority – taking over the role of telecommunications provider from the previous government department – was then free to determine its own priorities for providing access to telecommunications services to meet the needs of the Australian people.

¹⁷ While the two services were separated, access to the domestic network, controlled by the PGD was still required in order to access the international network.

¹⁸ M. Bourk, *Universal Service? Telecommunications Policy in Australia and People with Disabilities*. <http://www.tomw.net.au/uso/laws.html> [accessed 31.12.2003].

A further development of telecommunications technologies in Australia occurred in November 1985 when AUSSAT Pty Ltd launched Australia's first telecommunications satellite.¹⁹ AUSSAT was incorporated in 1981. Telecom held a 25% stake and the remainder was owned by the federal government. While the company at that time was prohibited under legislation from competing with Telecom in the provision of public network services, AUSSAT did compete in the provision of international telecommunications infrastructure.²⁰

In 1989 the *Telecommunications Act 1989* and the *Australian Telecommunications Corporations Act (ATC) 1989* obliged Telecom to provide 'standard telephone service' to all Australians on an equitable basis wherever they lived or carried on a business. While this was not a dramatic change to existing practice, the Act began the more specific codification of telecommunications obligations expected from the service provider. At the same time it potentially narrowed the level and scope of services that were necessary and essential to be provided and accessed by all people. While the obligation was now officially in place for all Australians to have this access, which had not previously been explicitly stated, the network was now more tightly defined. Previously the type of network had not been specified. It was now codified in terms of the standard telephone service.

Universal Service within these changes now became part of Telecom's Community Service Obligation. The CSO was to provide the 'Standard Telephone Service'

¹⁹ 'The Lowdown: Australian Space Development in Focus', http://www.lowdown.com.au/sat_assat.html [accessed 9.5.2005].

²⁰ H. Raiche, 'The Policy Context' in A. Grant (ed), *Australian Telecommunications Regulation: The Communications Law Centre Guide*. Sydney: Washington Press, 1997.

defined as the ‘public switched telephone service’ ‘as efficiently and economically as practicable’

- a) in view of the social importance of the standard telephone service, the service is reasonable accessible to all persons in Australia, on an equitable basis, wherever they reside or carry on business; and
- b) that the performance standards for the service reasonably meet the social, industrial, and corporate needs of the Australian community²¹

In 1990, the judiciary made its debut in the development of the USO in Australia. The plaintiff in the *Yarmirr* case resided upon by the Federal Court, was a group of individuals who asked the Court to enforce provisions of the Universal Service Obligation: *Yarmirr et al v Australian Telecommunications Corporation* (1990). In the *Yarmirr* ruling, Justice Burchett found that Universal Service Obligation was a ‘political duty’ of ‘general and indefinite character’ imposed by the Parliament, rather than a ‘right’ of the public, and as such the Court was unable to enforce them. Rather the mechanism for enforcement of these provisions should be ‘the remedy devised by Parliament of AUSTEL’, the telecommunications regulator at that stage.²² This clearly placed any determination of prescribed levels of basic telecommunications access in the hands of Parliament. There was according to this ruling no ‘right’ to these services for individual citizens or organisations outside the legislated framework.

The *Telecommunications Act 1991* introduced competition into the Australian telecommunications industry. A duopoly was created in the telecommunications

²¹ G. Goggin & I.R. Wilson, *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993, p. 13.

²² H. Raiche, ‘Universal Service In Australia’ in B. Langtry (ed). *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 11.

market with the introduction of Cable and Wireless, trading as Optus.²³ At this time, the CSO was separated into the Universal Service Obligation²⁴ – now defined specifically as access to standard telephone service²⁵ – comprising both private lines and payphones.²⁶ This Act placed the USO component of the CSO in the licence

23 At this point Optus also purchased AUSSAT.

24 288. (1) The universal service obligation is the obligation:

- (a) to ensure that the standard telephone service is reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business; and
- (b) to supply the standard telephone service to people in Australia; and
- (c) to ensure that payphones are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business; and
- (d) to supply, install and maintain payphones in Australia.

(2) The Minister may determine that it is part of the universal service obligation to supply, install and maintain payphones at specified locations in Australia.

(3) A determination under subsection (2) must be made by notice published in the Gazette.

(4) The regulations may prescribe, for the purposes of paragraph (1)

- (c), what is, or is not, necessary to ensure that payphones are reasonably accessible as mentioned in that paragraph.

(5) Neither of subsections (2) and (4) limits the generality of the other.

TELECOMMUNICATIONS ACT 1991

<http://austlii.law.uts.edu.au/au/other/media.OLD/6786.html> [accessed 29.10.2003].

25 "Standard telephone service" means:

- (a) unless paragraph (b) applies - a public switched telephone service that:
 - (i) is supplied by a carrier; and
 - (ii) is supplied by means of a telephone handset that does not have switching functions; or
- (b) if the regulations prescribe a telecommunications service, or telecommunications services, for the purposes of this definition - that telecommunications service or any of those telecommunications services;

TELECOMMUNICATIONS ACT 1991

<http://austlii.law.uts.edu.au/au/other/media.OLD/6786.html> [accessed 29.10.2003].

26 "payphone" means a fixed telephone that:

- (a) is connected to a telecommunications network operated by a general carrier; and
- (b) when in normal working order, cannot be used to make a telephone call (other than a free call or a call made with operator assistance) unless, as payment for the call, or to enable payment for the call to be collected:
 - (i) money, or a token, card or other object, has been put into a device that forms part of, is attached to, or is located near, the telephone; or
 - (ii) an identification number, or a code or other information (in numerical or any other form), has been input into a device that forms part of, is

conditions of the telecommunications companies. The social welfare responsibilities of telecommunications, now separated out from the USO, were to be paid out of consolidated revenue.²⁷ This moved the funding responsibility for the USO directly to the increasingly privatised telecommunications industry and once again tightened the definition of what the USO constituted and what it did not.

In February 1992, the Australian and Overseas Telecommunications Corporation (AOTC) was formed from the merger of the OTC and Telecom Australia as these two services were once again consolidated. The Telstra Corporation Ltd began trading internationally as the merged entity. On 1 July 1995 this became the domestic trading name of what had previously been Telecom.²⁸ This was ostensibly done to prepare the industry for greater competition. It was argued that a new name would not cause confusion with other operators.²⁹ The decision may also have been influenced by political factors. For example, distancing the organisation from the previous statutory authority – at least in name and public identity – would make it easier to later privatise the company.

Prior to this name change in June 1995, there was an additional change to the way that the Universal Service Obligation was delivered. On this occasion rather than coming from legislation dealing specifically with telecommunications, it came from

attached to, or is located near, the telephone; or
(iii) a prescribed act has been done;

TELECOMMUNICATIONS ACT 1991

<http://austlii.law.uts.edu.au/au/other/media.OLD/6786.html> [accessed 29.10.2003].

²⁷ The proponents of this approach some 90 years earlier at the inception of the Postmaster-General's Department finally having some of their proposed policy implemented.

²⁸ Senate Environment, Recreation, Communications and The Arts Reference Committee, *Telstra, to Sell or Not to Sell*. Canberra: Australian Government, 1996.

²⁹ 'Telstra Investor Relations – Corporate History', <http://www.telstra.com.au/investor/corphis.htm> [accessed 16.6.2002].

a Human Rights and Equal Opportunity Commission (HREOC) ruling on Telstra's compliance with its USO responsibilities under the *Disability Discrimination Act 1992*. The HREOC ruled in the case of *Scott and Disabled People's International (Australia) (DPI (A)) V Telstra* that Telstra must provide teletypewriters to deaf people as part of its commitments under the Universal Service Obligation as outlined in the *Telecommunications Act 1991*. This was an important interpretation of the telecommunications legislation made in conjunction with the *Disability Discrimination Act, 1992* which determined that Telstra's responsibilities were broader than the corporation's prior interpretation of standard telephone service provision.

The stand taken by the respondent (Telstra) reflects a grave misunderstanding of its responsibilities under both the DDA (Disability Discrimination Act, 1992) and the Telecommunications Act. I cannot think it would deliberately disregard the plainly expressed intentions of the Legislature³⁰

The courts, having determined earlier in the decade that there was no 'right' to Universal Service, now determined once again the primacy of the legislature in this area. This time, other laws were passed by the Parliament, as they applied to Telstra and its obligations under the USO. Under this ruling, the USO became more expansive, although ironically, and concurrently, more tightly defined.

In July 1997, the telecommunications market was further deregulated when open competition was permitted in the sector. New providers were also subject to the regulation of the Australian Communications Authority and conditions of their operators licence. In November of this same year, the government sold 33.3% of its shareholding in Telstra through a public listing. These shares were then tradeable on

³⁰ Scott and Disabled People's International (Australia) (DPI (A)) V Telstra, (HREOC, 1995, 15-15). M. Bourk, *Universal Service? Telecommunications Policy in Australia and People with Disabilities*. <http://www.tomw.net.au/uso/introduction.html> [accessed 1.12.2003].

the Australian, New Zealand and New York stock exchanges. In September 1999 a further 16.6% of the Commonwealth's initial ownership was also sold. The Commonwealth Government currently maintains a 50.1% majority share in Telstra, although the company has responsibilities under corporation's law to all its shareholders. These sales, T1 and T2 as they were known respectively, attracted a large number of small investors who acquired shares for the first time. While T1 was a great success for those involved, T2 was less so.³¹

The sale had a number of important implications. Firstly the corporation now had a fiducial duty to its shareholders to generate a return on investment that would now take precedence over its duty to serve the citizens of Australia who had previously been the sole owners. Therefore any social obligation the organisation might have previously had implied as its mission would now require legislation to enforce, as the company directors were bound by corporations law to give generation of return for investors priority. In addition to this, the sale of shares through T1 and T2 were specifically targeted to be sold as small parcels of shares to numerous investors who were first time share buyers. These shareholders now form a large group within the electorate who will be directly affected by any changes to government policy that would impact on Telstra's share price. This reflected a change in the government's conception of citizens and citizenship which was reflected on both sides of Australian politics. The conceptualisation of the 'share-holding citizen,' holding their stake in the nation's wealth as individuals through share ownership in large institutions, came to replace the previous citizen who participated in collective

31 R. Webb, 'T3: the \$600M call', *The Age* 30th January 2005.
<http://www.theage.com.au/news/Business/T3-the-600m-call/2005/01/29/1106850157986.html>
[accessed 1.7.2005].

management of government assets through public ownership and control. The potential under this model for excluding individuals from this view of ‘citizenship’ is obvious. This re-conception also serves to align the interests and wealth of these share-holding citizens, with the profitability of large public companies, and through them the wealth of the economic elite in Australian society. The balance shifted between rights and responsibilities.

In 1999 while the sale of Telstra was proceeding, the *Consumer Protection and Service Act 1999* was passed by Federal Parliament. This legislation once again defined the Universal Service Obligation and outlined how fees to meet this obligation would be paid by telecommunications providers in Australia which was authorised by the *Telecommunications (Universal Service Levy) Act 1997*). The new act outlined the plan to divide Australia into different areas for Universal Service provision. The delivery of services to these areas would be subject to tender from competing companies. The winner would then become eligible for the USO subsidy for that particular area. To date, Telstra has been designated as the sole Universal Service Provider for all of Australia, apart from some pilot programs run under the auspices of the legislation. The cost of servicing the USO is a point of disagreement between Telstra and the Australian Government. The costs allocated by Telstra to provide for the USO have risen dramatically over time.³² The new policy of putting different regions out to tender for their USO requirements is a further move towards government purchasing specified required services from private suppliers, and

32 ‘ACA: ACA Assessment Process of Telstra’s Universal Costs Claim for 1997-98 Financial Year’, *M2 Presswire*. 9th November 1998.

‘Rural telecommunications – USO costing’, *M2 Presswire*. 3rd February 2000.

‘Fed: Govt announces review into USO’ *AAP* 1st December 2003.

further away from the provision of telecommunications services through the public sphere.

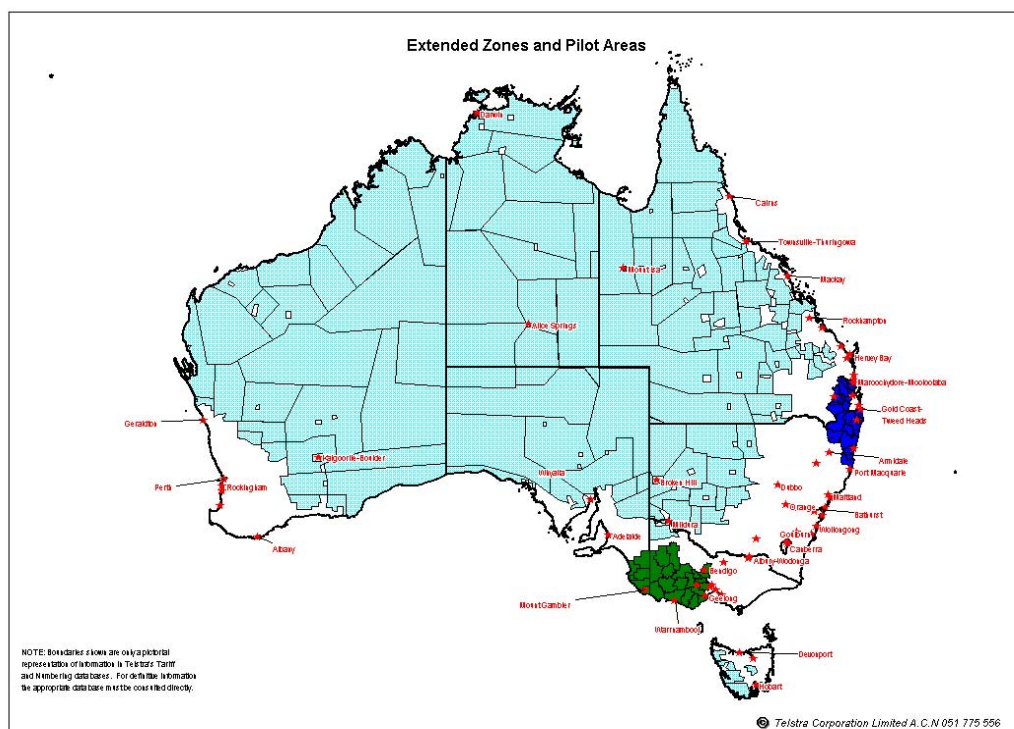


Figure 4
USO Extended Zones and Pilot Areas
<http://www.aca.gov.au/images/extended%20zones%20+pilot%20areas.jpg>
 [accessed 1.12.2003]

Since competition was introduced into the Australia telecommunications sector in 1991, the main basis for competition has been the delivery of services to the retail or consumer market. Telstra however has continued to be the primary provider of telecommunications hardware and the wholesale segment of the market, particularly outside the Melbourne-Sydney corridor on Australia's eastern seaboard. While competition in this area has been promoted by the government,³³ Telstra still owns the majority of infrastructure, which it then leases wholesale to the other industry

³³ OECD studies have shown that following the introduction of competition into the telecommunications sector there is normally a positive effect on the cost and range of services offered to consumers. O. Boylaud and G. Nicoletti, *Regulation, Market Structure and Performance in Telecommunications*. Economic Department Working Paper No. 237. Paris: OECD, 2000.

operators. This arrangement has been at the centre of a number of disputes and allegations of anti-competitive behaviour by Telstra.³⁴ By 2002, in response to this volatile context, Telstra was to be ‘virtually split’ into its wholesale and retail divisions for purposes of accounting and sale of services in the hope of reducing the impact of the flawed market on the retail sector. However recent calls by the Australian Competition and Consumer Commissioner Graeme Samuel for greater transparency in this separation indicates that this process may not have derived the hoped for benefits to this point in time.³⁵ While it had been suggested that this wholesale area should be renationalised and the retail division completely privatised³⁶ the recently appointed head of the company Solomon Trujillo has explicitly rejected any break-up of the company prior to its full privatisation in 2006.³⁷ Telstra’s domination of the wholesale market has placed the corporation in the commanding position to deliver the USO through traditional means³⁸ across Australia. However the government is hoping to encourage the use of alternative technology, such as CDMA mobile telephony operating in conjunction with radio-wave or copper network links, by competing providers to fulfil USO commitments in its trial areas.³⁹

The role of Telstra as Australia’s dominant telecommunications provider, particularly in providing service to regional and remote areas, is acknowledged in

34 ‘Fed: US trade report says Telstra uncompetitive’, *AAP* 4th July 2002.

35 A. Geoghean, ‘ACCC to watch Telstra movements closely’, *PM*, 23rd June 2005.
<http://www.abc.net.au/pm/content/2005/s1399342.htm> [accessed 23.6.2005].

36 Most notably by Lindsay Tanner the Shadow Minister for Communications. L. Tanner, *Reforming Telstra*. Australian Telecommunications Users Group Limited, May 2002.
<http://www.atug.com.au/article.cfm?newsid=168&newstype=1> [accessed 9.7.2005].

37 ‘New chief of Australia’s Telstra backs privatisation, opposed to break up’, *AFP*. Sydney: 12th June 2005. <http://au.news.yahoo.com/050612/19/uofr.html> [accessed 19.6.2005].

38 In this context, the traditional means refers to a terrestrial fibre optic cable network.

39 *Extended Zones and Pilot Areas*.
<http://www.aca.gov.au/images/extended%20zones%20+pilot%20areas.jpg> [accessed 4.7.2003].

government policy towards full privatisation of the corporation that explicitly ties this sale to an ‘adequate’ level of service provided in these areas. The government enquiry into the current level of service led by Dick Estens⁴⁰ produced mixed results and responses from the government.⁴¹ Plans for the full sale of Telstra were announced in the 2005 federal budget.

Telecommunications began in Australia as a public utility. This seems appropriate due to the nature of the Australian environment of a widely dispersed and relatively small population that would require considerable investment, of limited return, to connect more remote communities to each other, and the rest of the country through a common network. This is a situation that is unlikely to have been expedited by private investment, given the marginal economic nature of providing service to remote, small and isolated communities. From this situation, the government-run department became a statutory authority, and then a government-owned corporation. This was then partially privatised, while at the same time losing its position as the monopoly operator in this sector in Australia. A certain level of competition within this sector has been shown to produce good outcomes for consumers in other OECD countries.⁴² The Howard government’s mobilisation of neo-liberal ideology also utilised the alternative revenue option through the sale of this large public asset. The privatisation of Telstra had the effect of changing the corporation’s focus to the ‘duty to shareholders’, which now replaces its previous ‘duty to the citizens’. Ultimately it

40 D. Estens, *Connecting Regional Australia. The Report of the Estens Regional Telecommunications Inquiry*. Canberra: Commonwealth of Australia, 2002.
<http://www.telinquiry.gov.au/rti-report.html> [accessed 21.7.2005].

41 Mr Estens is a Moree cotton grower who controversially is a member of the National Party of Australia, and is close to the former leader of that party and deputy prime minister, John Anderson.

42 O. Boylaud & G Nicoletti, *Regulation, Market Structure and Performance in Telecommunications. Economics Department Working Paper No. 237*. Paris: Organisation for Economic Co-operation and Development, 2000.

would seem that the debate in the PGD has been determined, with telecommunications in Australia operated as a business, rather than a public service. Thus the Universal Service Obligation, that was previously inherent in the role of the government department, is now enforced on private operators through an industry specific tax that funds the cross subsidisation from more profitable services to areas where the competitive market would not be able to provide this level of service.

The transition in Australia of the telecommunications sector from a monopolised government department through to a competitive private industry was partly a product of the unique Australian environment at the time of federation. This has not mirrored the experience of other OECD nations, although contemporary USO policies in these countries have developed along not dissimilar lines to Australia. This generalised similarity, but with significant dissonance, can be illustrated by comparing the Australian experience with that of the United States. The Universal Service Obligation as a phrase, if not an identical concept to the one used in Australia can be traced back to the corporate policy of the US telecommunications company American Telephone and Telegraph (AT&T). Theodore Vale, the company president outlined the principle in 1910:

The Bell system was founded on the broad lines of ‘One System, ‘One Policy’, ‘Universal Service’, on the idea that no aggregation of isolated independent systems not under common control, however well built or equipped, could give the country the service. One system with a common policy, common purpose and common action; comprehensive, universal, interdependent, intercommunication like the highway system of the country, extending from every door to every other door affording electrical communication of every kind from everyone at every place to everyone at every other place.⁴³

43 *AT&T's Annual Report in 1910*. <http://www.ieeeusa.org/forum/POSITIONS/universalservice.html> [accessed 1.12.2003].

AT&T, despite this rhetoric, actually tended to concentrate on the more lucrative urban markets, leaving the lower margin rural areas to other operators. By 1934 in the United States, the concept of Universal Service had moved from corporate policy to government policy as outlined by the *US Communications Act of 1934*. Although the exact phrase is not mentioned, the act does stipulate in its preamble:

to make available, so far as possible, to all people of the United States, without discrimination on the basis of race, colour, religion, national origin, or sex a rapid, efficient, nationwide wire and radio communications service with adequate facilities at reasonable charges.⁴⁴

Having gone to this length, how these objectives were to be met was not explicitly

determined or codified in the actual body of the legislation.⁴⁵



This to an extent follows the Australian position of a less defined or specified obligation, but within the context of a regime that would regulate private companies, rather than provide the service through a government department such as the PGD in Australia was doing at the time.

State regulators, industry and the Federal Communications Commission (FCC) in the United States began to promote the USO in the 1950s.⁴⁶ The Universal Service Obligation was applied to low income and remote users by internal cost shifting between different customers and services within AT&T who provided services to 80% of the subscribers in the United States.⁴⁷

⁴⁴ *Communications Act of 1934*. <http://www.fcc.gov/Reports/1934new.pdf> [accessed 1.12.2003].

⁴⁵ G. Goggin & I.R. Wilson, *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993.

⁴⁶ *Federal and State Universal Service Programs and Challenges to Funding, Government Accounting Office Report*. 2nd July 2002. <http://www.gao.gov/new.items/d02187.pdf> [accessed 6.12.2003].

⁴⁷ *Federal and State Universal Service Programs and Challenges to Funding, Government Accounting Office Report*. 2nd July 2002. <http://www.gao.gov/new.items/d02187.pdf> [accessed 6.12.2003].

In 1984, AT&T was broken up into eight smaller companies after an agreement was reached between the parent company and the Department of Justice in a lawsuit brought by the latter under US anti trust law. This put an end to the previous aspirations to universal service through one company articulated in 1910.⁴⁸ The FCC then implemented Federal Access Charge fees. These fees were paid by long distance phone companies to originate or terminate long distance phone calls from a local network. They were then paid directly to the company that provided the local network and allowed for more expensive long distance calls to subsidise local calls. In addition to this, the FCC initiated charges to long distance telephone operators that were used to fund initiatives to provide access to telephone services for low-income customers, as well as those in rural or high-cost areas.⁴⁹ The *Telecommunications Act 1996* both ratified and extended these programs so that they also provided services for services to schools, libraries and rural health care providers. Having started from quite different environments in the provision of telecommunications services both Australia and the United States have moved to forms of government sponsored telecommunications industry cross subsidisation to finance their respective positions on their Universal Service Obligations.

While in Australia, telecommunications was a government owned and controlled monopoly, the United States policy was developed to break up a private monopoly to promote competition in the telecommunications market. The USO in both cases can be seen to move from what was initially seen for both The Postmaster-General's Department, and the American Telegraph and Telephone Company as an implied, if

⁴⁸ P. Temin and L. Galambos, *The Fall of the Bell System: A Study in Prices and Politics*. Sydney: Cambridge University Press, 1987.

⁴⁹ P. Temin and L. Galambos, *The Fall of the Bell System: A Study in Prices and Politics*. Sydney: Cambridge University Press, 1987.

poorly defined mission to bring telecommunications to the masses, through to a situation where both governments now use the tightly defined USO as a mechanism to regulate the supply and distribution of telecommunications services, and more specifically voice telephony services, to those places that would otherwise miss out on being connected to that network. To understand how this process of change occurred, and what implications of this process of change still inform current understanding of policy, it is important to look at the impact of the residual ideologies that this process has left in its wake.

Ideologies leave a residue in present institutions. Whatever is set in place at the origin of a discourse or framework is difficult to displace, particularly when institutions are formed on this foundation. Additionally when a discourse is established, at that point, the boundaries of that discourse will serve to limit the modes and types of expression that can be used within that discourse.⁵⁰ Those who first establish the framework then determine the grammar or rules and limitations of the debate. In the case of the USO there are some added twists to this broader concept. This is due to the changing nature of the discourse, with different ideologies being introduced over time that are able to better stake out their position as the organisations in which they manifest change, or more accurately are replaced by new types of institution. Thus the Australian public service duty of providing access to the telecommunications system can trace its origins from the Postmaster-General's Department, through to Telstra acknowledging that it had failed to provide a required level of service to the Boulding family. However there have been significant changes to this initial 'residue' along the way. The ruling against Telecom's failed

⁵⁰ This argument will be outlined in Chapter Four of this thesis, 'The Digital Citizen'.

understanding of its requirements under the *Disability Discrimination Act 1992*, can be directly traced back to its move from a government department to a statutory authority in 1975, when it was charged to ‘meet the social, industrial, and commercial needs of the Australian people for telecommunications, and shall, so far as it is, in its opinion, reasonably and practicable to do so’. This type of residual ideology is quite out of place in a private company operating in an increasingly regulated USO environment. Thus while a trace of each incarnation of the telecommunications provider in Australia can be seen to have continuing influence, it has also been subject to greater change than might otherwise have been the case by the dramatic changes in the underlying administrative and chartered structure of the provider of this service from government department, through to competing private companies in the deregulated marketplace. This effect has been less marked in the United States, where the service providers have always been private companies, albeit with differing levels of government regulation, although one of the driving factors behind the decision to break up the AT&T Bell system into smaller independent companies in the 1980s was the company’s rigid internal structure, that can trace its origin or residual effect back to Theodore Vale and 1910.⁵¹

Through the incremental shifts and reactive responses to technological obsolescence, the USO as public policy has developed over time. However there are other Universal Service discourses that developed outside of this context. British academic Nicholas Garnham identified two different views of Universal Service in telecommunications:

⁵¹ P. Temin and L. Galambos, *The Fall of the Bell System: A Study in Prices and Politics*. Sydney: Cambridge University Press, 1987, p. 337.

- 1) Politico-Philosophical: Sees universal service in telecommunications as a basic right of citizens essential for membership of a social community' and for 'freedom of expression and communications' the implications of this view are that questions of economic efficiency are overridden by the importance of the Universal Service concept, and that the only policy question is the revenue source from which it will be funded
- 2) Economic: Access to telecommunications as an 'economic' good to be consumed in the 'market'⁵²

Dividing arguments in to these two groups is useful to categorising much of the academic analysis that has been done to date. It is ultimately, however, a false dichotomy. The Politico-Philosophical analysis of Universal Service is that it is a self-evident necessity for people to interact, and participate in society as full members. It follows a not dissimilar view to that which inspired the unsuccessful *Yarmirr* Federal Court action, that access to the telecommunications network should be a right of every person. This view of Universal Service Obligation links the concept very much with that of citizenship, and the relationship of the citizen to the democracy and society through active participation.⁵³ As Hills stated:

Telecommunications has a social and political function. It allows the citizen not only within the local community but beyond, combating the dualistic tendencies of the Urban/Rural divide. In this sense telecommunications enable that free association which is fundamental to a democratic political system.⁵⁴

The role of universal access to telecommunications is seen as particularly important in Australia where the level of geographic isolation is higher than that experienced in many comparable countries. This Politico-Philosophical position has also been used to illustrate the lack of access to this 'Universal Service' for non-citizens, those who are unable to fully participate in society through having insufficient access to the means to do so including, but not necessarily limited to, telecommunications. This

⁵² N. Garnham as cited in H. Raiche, 'Universal Service In Australia' in B. Langtry (ed). *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 11.

⁵³ This position is explored further in Chapter Four, 'The Digital Citizen'.

⁵⁴ J. Hills, 'Telecommunications and Democracy: The International Experience', *Telecommunications Journal*. January 1993, volume 60, number 1, pp. 21-29.

would include groups such as Aboriginal and Torres Strait Islander peoples, people with disabilities, women, and people with a first language other than English.⁵⁵ The Politico-Philosophical view of Universal Service is also often used to translate this concept to discussions on Internet access. In this view, telecommunications is seen as fundamentally different from other goods and services as it relates directly to the rights of a citizen. Universal Service is qualitatively different to access to Pepsi or fast cars, in that it provides an avenue through which individuals are connected to the wider society. Access to information and communications through the telecommunications network is not just necessary to allow for citizens to play an active role in society, it provides access to the symbolic order.

The economic view of Universal Service advocates the argument that access to telecommunications is in itself an economic good which should be determined through market forces that will operate most efficiently if not distorted through any government interference. Related to this notion is the understanding that the greater the penetration of access, the better the marketplace for buyers and sellers enabled through that medium, and the less potential for market distortions. Both these concepts align with the argument that to live in a consumer culture, the ability to consume is an important part of participation in society. Thus to be able to use the telecommunications system to allow for access to goods, and service, and indeed to

⁵⁵ G. Goggin, 'Citizen and Beyond: Universal Service in the Twilight of the Nations State' in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 103. These same groups were noted as being disadvantaged in terms of access to the Internet in the National Office of The Information Economy's *Survey of Australian Programs to Increase Individual and Community Access to the Internet*. October 2000. <http://www.noie.gov.au/projects/access/Archive/cps/> [accessed 6.12.2003].

consume the access itself is necessary in order to be a 'citizen' of a consumer society. As Lee articulated, 'Cultural capital must be seen through consumption'.⁵⁶

Garnham's two perspectives are complementary rather than dichotomous. Citizenship is much more than consumerism, although there is a consumerist aspect to contemporary citizenship. Similarly, citizenship and economics are not separate when exploring telecommunications as might be first thought. As a network connects more people and thus has a greater value to each of those connected, the disadvantage to those not on the network is compounded both as a participatory member of a society, and as a consumer of economic goods and service.⁵⁷ The greater the value of the network, due to its accumulated members, the greater the opportunity cost forgone by those who do not have access.

Changing Definitions. Shifting Paradigms.

There has been considerable debate within Australia about the changing nature of the USO. These debates have revolved around the major changes to the structure and regulation of the telecommunications environment in Australia over the past century. The definition and evolution of the terms 'Universal' and 'Service' are a point of discussion. Meanings will change over time.⁵⁸ However it is important to also focus on the nature of Obligation. How the meaning and understanding of this word can be seen to change over time is central to an analysis of the USO in Australia.

⁵⁶ M. J. Lee, *Consumer Culture Reborn: The Cultural Politics of Consumption*. New York: Routledge, 1993.

⁵⁷ This also creates problems for those who are trying to put a specific cost on any one connection that forms part of this network, as its value will vary, with the total value of the network.

⁵⁸ M. J. Bourke, *Universal Service? Telecommunications Policy in Australia and People with Disabilities*. Belconnen: Tomw Communications, 2000. <http://www.tomw.net.au/uso/> [accessed 1.12.2003].

The concept of the Universal Service Obligation is bound to change as technology develops, expectations of what services are expected by the public change, and the role of government in providing these services changes. While the existing USO situation has been outlined, arguments could be made to define the Universal Service Obligation as being met, on one hand, by each city having access to a single pay phone provided by a private company and unfettered market forces left to determine on the cost to users, or at the other end of the spectrum, by each person in the country having their own third generation mobile phone with universal coverage, high bandwidth Internet access, and operating with no charge, or more accurately the government paying as a public service from consolidated revenue. Within current definition of the USO, geography is the dominant factor of consideration. However there are other considerations that can also be seen as an impediment to telephone access, including economic and social factors, physical disabilities, such as blindness or deafness that may impede accessing a normal telephone and may require additional equipment, and finally what telephony is actually used for by its consumers/citizens. To illustrate these issues better it is useful to separate the analysis of the changing nature of each aspect of the USO.

Service

Of the three components of the USO, the changes that have occurred to the meaning of 'service' are the most obvious and easiest to track. As new technology develops and others are rendered obsolete, what people expect, and need from telecommunications services will change. Thus 'Service' may change from an initial

telegraph service to access to a dial tone and a limited quality voice line, through to high bandwidth data transmission. All can be viewed as service at some level. The minimum standard of service accessible to all will change as the demand for, and uses of, telephony service changes.

These changes impact on two areas. As technology develops, previous systems become redundant and unsupported. There is no point in maintaining a national telegraph system when the technology has been superseded both in terms of sophistication of service and simplicity of use. More importantly, as that communication format is no longer supported throughout the world, such a network would be obsolete. At the other end of this spectrum, new technologies are developed. However not everything that is devised will necessarily be developed to the point where it is available to the public at large. New technologies may require government support or regulation before they are implemented. Within Australia both pay⁵⁹ and digital television are examples of technology that was only available after development of, and changes in, government policy.

When new services become available they are generally offered as an additional option for people with its distribution often limited by economics and geography.⁶⁰ Over time, some of these services come to be considered universally available, and access to them is assumed for people who participate as full members of society. At this point one medium may be used by government to communicate messages to all

⁵⁹ The subscription television service in Australia is provided both through Fibre Optic Cable, and Satellite.

⁶⁰ Although when the analogue television signal, like the analogue mobile phone system before it is turned off, and enforces obsolescence on devices that rely on it, anyone wishing to have even the same level of service will be forced to upgrade.

their citizens, such as television and radio, with other technologies utilised for the citizens to communicate back, such as voice telephony. In addition, the government can be seen to have a responsibility to provide these services, or more specifically to ensure that all citizens have the ability to access this level of service so as to be able to fully participate in society.

With broadcast systems such as TV and radio, the government actively regulates the organisations that are responsible for broadcast, ensuring that signals are available in remoter areas, and regulating the content that is available through those broadcasts.⁶¹ The government does not provide access to the reception devices, television and radio sets. Within the voice telephone network however, partly because it is a network of individual nodes on a closed network rather than a radio wave broadcast system, the government legislation does allow for the provision of equipment to access the network, as well as the network itself.⁶²

Determining the level of communications technology needed to be a full participant in society, and thereby requiring government intervention, is necessarily a political decision influenced by a particular view of what equitable membership of society entails. If the government does not act to provide access to an appropriate level of

61 This is primarily done through the Australian Broadcasting Authority <http://www.aba.gov.au/>. There is no equivalent to the television licence fee in Australia. N. Dick, 'The Road to Television Networking', *Media International Australia, Incorporating Culture and Policy*. May 2001, number 99, pp. 67-71.

L. Green, '(Not) using the remote commercial television service to dispel distance in rural and remote Western Australia', *Media International Australia, Incorporating Culture and Policy*. August 1998, number 88, pp. 25-39.

62 Mobile phones that serve as an addition to the traditional phone network interestingly hold a position more like that of television and radio as the government invests and regulates to ensure greater coverage for their signal 'footprint', as well as regulating related content through anti SMS Spam legislation. At the same time there is no provision for guaranteeing access to this network for individuals.

service then those who do not have this will become excluded from society, or non-citizens, as they are unable to meet the minimum requirement for citizenship. The definition of access to what type of service is required for this requisite level of participation is one that by its very nature will change over time. These debates are not limited to telecommunications technology, as can be seen in health debates over the role of Medicare in Australia, as a 'safety net' or a 'universal service'.

The changing nature of the definition of service has become more tightly defined over time. The initial PGD had no explicit type of technology or line quality it was mandated to deliver. Rather it was charged with the overreaching responsibility for the postal, telegraph and telephone network. As telecommunications regulation and provision and the USO developed over time, this broad responsibility was narrowed further towards a standard voice line, either at a public payphone or at a place of residence or business. Parallel to this change in definition of what was an acceptable level of service was the change in the nature of the provision of the service from a broad obligation to be provided, through to a cost to be paid for other agencies to deliver a specific product. This has also paralleled the change in the language of the debate from one where there was a public service approach to users, or citizens, to one of a market of consumers for telecommunications products.

This tighter definition has come into conflict with a broad range of new data and mobile telephony, both Internet mediated and other propriety networks. This is the friction point of when these new services may be seen as essential to participate in society, and thus create a role for and obligation on, government to act to ensure that access to these services is adequately distributed. This 'new wave' of data and

mobile telephony is at odds with the trend to a tighter definition of what service should be. Recently this has been evident in the debate over the upgrade of the USO to reflect a requirement for greater data capacity. Currently the USO requirement of 7600bps allows for fax transmissions, but does not provide quality sufficient for an Internet connection capable of viably accessing the World Wide Web. The 1999 report of the National Bandwidth Enquiry into telecommunications in Australia⁶³ and the more recent debates about Telstra's role in providing broadband Internet access to rural Australia – particularly in light of its impending full privatisation – can be seen as signs of this friction.⁶⁴

The debate about 'future proofing' the level of service to regional Australia in the event of the sale of Telstra explicitly acknowledges both the changing nature of service and at what level it must be provided to enable full participation in society, and the difficulty in making this 'upgrade' in the services that are regulated through the USO given the trend to more tightly define, and thus limit what is available as opposed to broaden the services that might be deemed necessary to regulate in this manner. The change in what can be accessed through different telecommunications

63 *National Bandwidth Enquiry: Report of the Australian Information Economy Advisory Council*. Canberra: Commonwealth of Australia, 1999.

64 J. Riley, 'Vaile backs Telstra's \$7bn broadband plans', *The Australian*. 25th June 2005. http://www.theaustralian.news.com.au/common/story_page/0,5744,15722905%255E2702,00.html [accessed 9.7.2005].

Page Research Centre Limited, *Future-Proofing Telecommunications in non-Metropolitan Australia*. Wagga Wagga: Page Research Centre Limited, March 2005.

http://www.page.org.au/downloads/PRC_Telecomms_Paper.pdf [accessed 9.7.2005].

J. Sheed & K. Morrissey, 'Telstra sale legislation on agenda after July', *The Age*. 1st February 2005. <http://www.theage.com.au/news/Business/Telstra-sale-legislation-on-agenda-after-July/2005/01/31/1107020326104.html> [accessed 9.7.2005].

C. McGrath 'NFF refuses to discuss Telstra sale' *AM*. 15th December 2005. <http://www.abc.net.au/am/content/2004/s1265463.htm> [accessed 9.7.2005].

Wondur Business and Technology Services, *Broadband Adoption by Agriculture and Local Government Councils – Australia and the USA: A Report for the Rural Industries Research and Development Corporation and the Australian Local Government Association*. Canberra: Australian Government, Rural Industries Research and Development Corporation, August 2004.

media and the subsequent change in what is essential to participate in society are at the point of friction in terms of service, in the ongoing negotiation of the USO.

The new technologies on offer mean that the telecommunications situation has fundamentally changed from the fixed line voice telephony service. This transformation applies not only to data, but also the various forms of mobile telephony. The type of access that may be essential for one person may be of no use to another. This is exacerbated by the rapidly changing nature of the telecommunications market. In this environment it is argued that it is simply impossible to prescribe one limited type of access as universally essential. Telstra noted in its submission to the senate enquiry on the part privatisation of Telstra in 1997 that it disputed the idea that data services were “widely and socially significant” and suggested that mobile phones and access to the mobile network should be seen as of at least equal significance.⁶⁵

Can the current communications policy discourse cope with the changing nature of service beyond voice telephony? The last ‘big shift’ in dominant telecommunication platforms from telegraph to telephone services happened prior to USO in an environment where the role of the PGD was widely interpreted. The government to date is treating the Internet similar to broadcast media. It regulates content, but not access. Is this an appropriate paradigm, and – if not – how could it be changed?

⁶⁵ Telstra Submission, Number 189, volume 7, p. 1321. Senate Environment, Communications, Information Technology, and The Arts Committee: Consideration of the Telstra (Dilution of Public Ownership) Bill 1996. As Cited in *Minority Report Chapter Three: Improved Community and Consumer Safeguards*. p. 6. http://www.aph.gov.au/Senate/committee/ecita_ctte/telstra/report/f04.htm [accessed 6.12.2003].

Universal

The notion of what is 'Universal' in regard to the USO changes in the different contexts of both services and obligation. Within Australia, access to the standard telephone service is guaranteed regardless of location, however this guarantee is dependant on your 'location' being at home or at work, both of which are tightly defined in Telstra's policy documents that respond to its Universal Service Obligations⁶⁶ and in many cases will be satisfied by a single shared pay phone to service entire remote Indigenous communities.

Prior to federation in 1901, one of the areas of close inter-colonial cooperation had been in the telecommunications sector. As early as 1856, Victoria, New South Wales and South Australia had agreed to cooperate on an inter-colonial telegraph system and from the 1890s there were bi-annual post and telegraph or P&T meetings attended by the relevant politicians and public servants from all the Australian colonies, and New Zealand.⁶⁷ However while the delivery of telecommunications services was clearly an important priority in Australia after European colonisation the services provided would not meet any current definition of universal. Through these efforts, all the colonies were eventually linked through the telegraphy system both to each other and then to the international network. The fact that this could be considered a form of universal coverage for the colonies (albeit to only the major population centres), serves to illustrate how the term is subject to change over time.

⁶⁶ Telstra's *Universal Service Obligations Standard Marketing Plan*.
http://www.aca.gov.au/telcomm/universal_service_regime/mp.rtf
[accessed 1.12.2003].

⁶⁷ K. T. Livingston, *The Wired Nation Continent: The Communications Revolution and Federating Australia*. Melbourne: Oxford University Press, 1996, p. 16.

It is fair to note that at the time of federation there was not what could be considered universal access to telecommunications service, as it is now understood.

The Postmaster-General's Department took over the role played by the separate colonial administrations and while it had no chartered obligation to provide universal service, it is clear that it became part of its implicit mission to broaden the reach of telecommunications services across the continent. In 1975, Telecom was given the more explicit mission to 'make its telecommunications services available throughout Australia for all people who reasonably require those services'. In the *Telecommunications Act 1989* this obligation became one where all Australians were to have equitable access to the standard telephone service, at least at their place of residence and business. This was essentially a 'geographic' guarantee to a phone connection, with little regard for other areas of exclusion. In 1991, new legislation determined that payment for this Universal coverage would come from the telecommunications companies as part of their licence conditions. In 1995 The Human Rights and Equal Opportunity Commission ruling determined that there was more than just a geographic component to the Universal aspect of the USO with its ruling that special services for people with disabilities were also required to be delivered. The *Telecommunications (Universal Service Levy) Act 1997* further defined how the now open telecommunications industry would fund the USO, and began the introduction of potential competition into the provision of these services.

As the service component of the USO has become more tightly defined, so too has the notion of what is considered universal, along with who is responsible for the funding for, and actual provision of, this service. Universal within the Australian

USO context tends to focus on the geographic delivery of services to people, albeit with the inclusion of special access conditions for disabled telecommunications users. However not all people in Australia who want access to a phone line maintain this service. This is in part due to the USO being covered by the provision of public telephone, but also points to the fact that there is more to providing universal coverage than just the geographic aspect. While the historical perspective shows that for the PGD this may have been a major issue early on in the development of Australia's telecommunications industry, it is not the only factor that will influence people's ability to access the network. This is particularly important given the role that telecommunications plays in creating informed citizens.⁶⁸ As technology becomes more sophisticated, and the ability to deliver this technology increases, then the demand for what is universally available will also change. What is Universal is ultimately inseparable from what is Service, however the level of sophistication of telecommunications delivered, how they are delivered, and by whom will depend on the changing understanding of Obligation.

Obligation

Service is becoming more narrowly defined, and provision of these services (who provides it, how much it costs) is being made more explicit. These are the trends in change to Service and Universal. They can be best understood through the changing nature of Obligation in the USO. In many analyses, this is omitted. Indeed, Obligation is often not even included in the label.

⁶⁸ This point is explored further in Chapter Four, 'The Digital Citizen'.

The trend in Australia is for the USO to become more tightly defined each time it is reinterpreted and reapplied. The role of the government has moved from one where it was the provider of these services to one where its role is to regulate these services as they are both provided and funded from the deregulated telecommunications industry. This can be understood as a change in the type of public good that government is using to inform its telecommunications policy. In 1739, Hume outlined the concept of public goods in his *Treatise of Human Nature*.⁶⁹ A traditional public good should have the quality that it is both non-excludable and non-exhaustible. An individual cannot be prevented from using a public good, and each additional individual accessing a public good will not add to the total cost of providing that good. Common examples of public goods are national defence and the environment, in both these cases the public good will effect all the people using it within the Nation State, either by having a military to ward off attack, or clean air to breathe, and by and large each additional individual partaking of the good will not add to its overall cost. In the case of the Internet, as noted through the network analysis, each additional user not only does not take away from the value of the public good, but in fact increases the total value of the network.

Telecommunications was initially seen as a public good that was provided by government for the benefits of all. Such an open-ended deployment and definition reveals synergies with the defence of the country. The provision of services need not be tightly defined in this case, as the commitment is to an extent both open ended, and likely to change over time as technology develops. It also allows the government to regulate the provision of this type of 'good' in changing environments as it sees

⁶⁹ D. Hume, *Treatise of Human Nature*. London: Oxford University Press, 1888.
<http://www.class.uidaho.edu/mickelsen/ToC/hume%20treatise%20ToC.htm> [accessed 21.6.2004].

fit, to serve the interests of the nation at large. Thus the navy can be used to turn back asylum seekers on the high seas, even though this is not the role for which it is constituted.⁷⁰ Understanding telecommunications in this way also helps inform why the USO has been so geographically grounded. This is a reflection of the desire for everyone to have access to the network and fulfil the non-exclusion requirement of the public good. As it is provided by government this becomes a central feature of a successful outcome. Similarly the defence forces are designed to defend all Australian territory, not just the easily defended areas of mainland Australia.⁷¹

Government policy in relation to telecommunications over time has shifted. Earlier understandings of a good to be provided by government has transformed into a public good that must be regulated by the government, more analogous to the environment. Within the United States, the USO was always considered this second type of public good as the earlier 'roll out' of services had been done through private investment, fuelled by the greater returns to be had in providing services to the less geographically dispersed population. Instead, the focus there has been on ensuring that the private provision of these services is done in the public interest, thus the regulations requiring the break-up of the monopolistic provision of service by AT&T. Within Australia this is a crucial shift in understanding the nature of the telephone service as a public good. This new understanding then relies upon a number of assumptions, the foremost of these is that these services are abundant or at least available everywhere. This premise is obviously not the case as the Boulding

70 How the interests of the nation at large are served by this example is highly questionable.

71 In 2003 the Australian Navy chased a Uruguayan fishing vessel, the *Viarsa* – 1, 7000km across the Atlantic and then boarded and returned the vessel to Australia after it violated Australian fishing grounds in the Southern Ocean. D. Koh 'Alleged Fish Poachers Arrive in WA' *Lateline*. 20th March 2003. <http://www.abc.net.au/lateline/content/2003/s959857.htm> [accessed 1.12.2003].

family tragically illustrated. The USO is now used as the mechanism that is supposed to make up for these areas where the resource is not so abundant as to only require regulation rather than provision. The other problematic assumption with this understanding of the telecommunications industry is that the technology does not change and is like the environment, a relatively static resource for government regulation. The technology does change, and these changes can create different problems for access especially once they are established to the point where access can be seen to be essential to participate as an active member of society. In this aspect telecommunications services are still analogous to the changing nature of national defence as a public good both in terms of what technology is required and the changing environment in which it is applied. The failure of this understanding of telecommunications a 'regulated' public good is not immediately apparent, as it takes time for any technology to reach the point where universal access to the service will be essential for full participation in society, however once it does reach this point this understanding will make the process of change difficult to administer.

This second type of regulated public good is much better suited to the neo-liberal small government ideology that informs the Howard Liberal/National government in Australia with its commitment to 'small government', than the previous understanding. Public goods that are government provided must be paid for out of consolidated revenues through taxation, whereas regulated public goods are largely revenue neutral, and may actually produce revenue through taxation and fines used as part of any regulatory regime. Once the obligation of government in relation to the USO is seen as one where it acts as a regulator, rather than provider, then there are obvious gaps that will appear in the areas that can be regulated, where no service

currently exists, or will exist. It then becomes the role of the USO to be the mechanism that ‘fills’ these gaps, where the government pays for the service to be provided where it would not otherwise appear. This is different from the government providing the service itself, as it now becomes a package of telecommunications products that must be purchased and paid for from private companies with no open ended commitment to the citizens that the government serves, thus the products provided must be tightly codified.

Home, Hearth, and DSL?

The significant issue to evaluate is at what point can the Internet be said to be part of the USO. The understanding currently used to inform Internet regulation is more analogous to television and radio than it is to the telephone. The federal government acts to regulate content both on the Web, through the Australia Broadcasting Authority which has jurisdiction over television and radio and over email by trying to tackle the problems presented by Spam. With television, radio, voice communications and the Internet rapidly converging as digital media,⁷² how will a government’s regulatory regime and its underlying assumptions about each individual medium cope? Government in Australia seems committed to the position that these are different and distinct types of media. The weight of both history and the residue ideologies that come with it, not to mention the vested interests of the owners of media and distribution in each of these areas, will act for some time to prevent an analysis that treats these different media as converging on the same ‘broadcast’ medium requiring a uniform regulatory understanding. Australia is a

⁷² The issues driving this convergence are discussed in detail in Chapter Three, ‘Networks and Digitisation’.

formerly colonised nation with specific difficulties for universal service in telecommunication history. These difficulties have not always been handled well. The key is now – as digitisation and convergent media are rolled out – how this challenge is handled. Will it solve prior problems, repeat them or create new ones?

This convergence of communication and media through the Internet is particularly significant in relation to the USO as a mechanism for ‘filling the gaps’ in an otherwise universally distributed resource that merely requires government regulation, rather than provision. The USO is also limited by the role of historic discourse and residual ideologies from understanding or embracing these convergent mediums or technologies. Thus the idea of ‘future proofing’ telecommunications in regional Australia⁷³ is impeded by discourse that fails to understand the scope of the field it is dealing with currently, let alone into the future. As a mechanism designed to provide service to those who need it and would otherwise miss out, the USO as it is currently constituted, will be the only service that these people most at risk will receive. The more tightly defined USO means that as potential services (those that fall outside this tightly defined definition) increase, then those who rely on the USO for their telecommunications needs will necessarily be left behind. The more ambiguous the definition of the USO, the greater the reach it will have. The reverse

73 This debate has been particularly active in the lead up to the sale of the remaining Australian Government share in Telstra.

‘Vaile stands by Telstra fund costing’, *ABC Online*, 29th July 2005.

<http://www.abc.net.au/news/newsitems/200507/s1425759.htm> [accessed 2.8.2005].

M. Gratten, ‘Nats set Telstra sell-off terms’, *The Age*, 1st August 2005.

<http://www.theage.com.au/text/articles/2005/07/31/1122748527059.html> [accessed 2.8.2005].

K. Landers, ‘Telstra sale could fund bush telco network: Nat’s report’, *PM*, 17th March 2005.

<http://www.abc.net.au/pm/content/2005/s1326109.htm> [accessed 2.8.2005].

J. Riley, ‘Coonan cracks Telstra whip’, *Australian IT*, 12th July 2005.

<http://australianit.news.com.au/common/print/0,7208,15897796%5E15320%5E%5Enbv%5E15306,00.html> [accessed 2.8.2005].

of this maxim is also true. Finding a way to expand this discourse to confront this convergence of services in the future thus takes on a priority. If every new form of media is legislated on the basis of the mistakes made in the previous media, as is most often the case, then this task is made more difficult. The last major upgrade to service from the public telegraph to the private telephone took place when both forms of telecommunications were public goods provided through government via the Postmaster-General's Department.

Can the USO inform any dialogue about providing access to the Internet throughout society? In its current state, there may prove to be too much 'sunken ideology' to be of effective use. However it is possible that a new discourse fashioned around the Internet may in turn inform debate and discourse that engage with the USO. This may come from co-opting debate around the regulation of radio and television, particularly the role out of digital television services, and more importantly the migration of television services to the Internet.⁷⁴ The government, through the Australia Broadcasting Corporation (ABC), currently plays a role in ensuring access to television and radio, once again primarily geographically, across Australia. The ABC also provides a broad and effective Internet presence through ABC online.⁷⁵ The fact that all these areas fall under the domain of the Minister for Communications, Helen Coonan and her department may allow for the holistic nature of this portfolio to be better actualised through regulation, and via the provision of services to those who would otherwise miss out.

⁷⁴ Telstra is currently in negotiations with both Australian free to air television networks, and Hollywood film studios with the objective of delivering this content through the Internet using Internet Protocol Television (IPTV) in 2006. D. Kitney & M. Jones 'Telstra's plan for internet TV revolution' *The Australian Financial Review*. 30th May 2005, p. 1.

⁷⁵ ABC Online can be found at <http://www.abc.net.au/>.

Current government expenditure in relation to access to broadband Internet infrastructure indicates a mixed response. The Higher Bandwidth Incentive Scheme (HiBIS)⁷⁶ is a government program that provides a payment of between \$1540 and \$3300 per customer for Internet Service Providers to provide high bandwidth Internet access to rural users.⁷⁷ While the government clearly sees a role to encourage the spread of this type of access, and is prepared to subsidise the initial expenditure that this may require, this is a significant step back from ensuring any sort of universal availability to this service. By contrast the Metropolitan Broadband Blackspots Program⁷⁸ seeks to provide Internet access in urban areas where there are 'holes' in the existing coverage.⁷⁹ The latter program would appear to show a greater commitment to the universal geographic coverage, albeit only in urban areas. This urban regional disparity can be partly explained by the costs involved. While the Blackspots Program has been allocated \$50 million over three years,⁸⁰ HiBIS with its seemingly more modest aims has been allocated \$107.8 million.⁸¹ The Networking

76 Department of Communications, Information Technology and the Arts Web Site:

http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis#2 [accessed 5.6.2005].

77 In this case defining rural users as anyone who does not live in the state capital cities or adjacent population centres.

[http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis/provider_overview_of_the_higher_bandwidth_incentive_scheme_\(hibis\)](http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis/provider_overview_of_the_higher_bandwidth_incentive_scheme_(hibis)) [accessed 5.6.2005].

78 Senator Coonan, Minister of Communications, Information Technology and the Arts Web Page: http://www.minister.dcita.gov.au/media/media_releases/continued_commitment_to_communications,_information_technology,_arts_and_sport [accessed 5.6.2005].

79 In Perth 92% of households have access to broadband Internet through ADSL, however there are a number of 'blackspots' including Canning Vale, Maylands, Wanneroo, Hamersley, Beechboro, Doubleview and some parts of Fremantle, due to both distance from telephone exchanges, and the technology used in those exchanges. *The West Australian* 27th April 2005.

80 K. Morrissey, 'Feds target urban broadband blackspots', *AAP*.

<http://www.zdnet.com.au/news/communications/0,2000061791,39191294,00.htm> [accessed 5.6.2005].

81 Department of Telecommunications, Information Technology and the Arts, *Higher Bandwidth Incentive Scheme*. http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis#2 [accessed 5.6.2005].

the Nation⁸² program was another, earlier, government initiative funded by the part sale Telstra to provide Internet access to regional areas. Funding from this program closed in 2003. Eighty percent of the programs initiated through this funding have since failed.⁸³

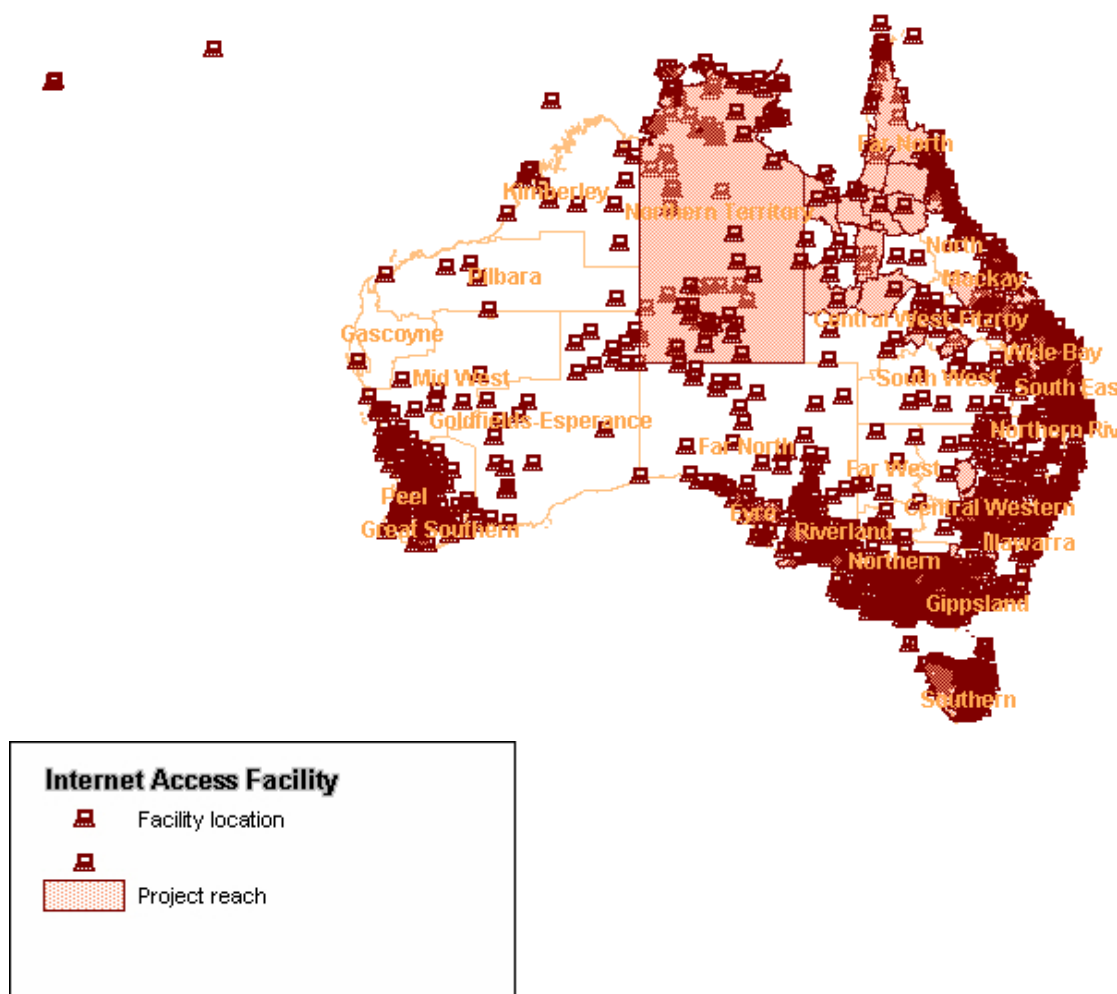


Figure 5
Networking the Nation Funded Internet Access Facilities
<http://sdndiscovery.dcita.gov.au/MIDiscovery/>
 [accessed 15.5.2005]

⁸² Networking the Nation home page at the Department of Communications, Information Technology and the Arts.

http://www.dcita.gov.au/tel/role_of_the_telecommunications_division_and_contacts/networking_the_nation [accessed 15.5.2005].

⁸³ C. Morris & M. Meadows, 'Digital Dreaming: Indigenous Intellectual Property and New Communication Technologies', in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney UNSW Press, 2004.

The discourse that currently surrounds the USO, and the trend to a tighter rather than a broad definition of the service provided, probably preclude access to the Internet being delivered with this framework. Having noted this trend, a debate is emerging around the sale of the remaining government-owned shares in Telstra. It has started to adopt lines of debate around access to broadband Internet connections that has similar parameters to the USO. While lack of access to this level of service is seen as having negative social connotations, the primary consideration revolves around issues of geographic access, and this takes precedence over other social and economic factors that may prove to be larger barriers to access than geography for the majority of Australian citizens who do not yet enjoy these services.

The point at which ensuring access to the Internet becomes a role for government is at the point that it is evident that in order to be a full participant in society and citizen of the country the ability to access the Internet is essential. As government and other essential service providers, such as banks, move more services online and reduce their off screen alternatives, this critical point approaches or has already past. The challenge is to ensure that people in society are not left behind or are at least in a position to 'catch up'. To enact this project, a new discourse around this issue will need to be articulated.

Those who then miss out on access to telecommunications service, and specifically those that are regulated through the USO but also those that are essential for an individual's full participation in society, can be seen as those for whom this mechanism or bandaid provided through the USO is inadequate. The USO as a

‘safety net’ is primarily a geographic solution. This as noted above is due largely to the historic rollout of telecommunications services in Australia. While some of those without access still do suffer from geographic disadvantage, there are others for whom the problems are economic or cultural.

In 1996, the Consumers Telecommunication Network produced *Reforming Universal Service*, a report that argued that a true policy of universal service would have to address five separate areas: Universal geographical availability; Universal accessibility; Universal affordability; Universal technology standards; Universal telecommunications and participation in society.⁸⁴ The report argued that the USO policy currently in place, only deals with the first of these five areas. The concern was that the inequitable distribution of telecommunications services compounds existing social and economic inequality. This view of universal access sees it as a mechanism that must address all, or at least as many factors as practicable that would act as impediments to access the telecommunications network. What is the point in giving a pay phone to a community where no one can afford to use it? How useful is a phone connection at home to some one with a physical impairment that prevents them from making use of it, unless additional equipment is supplied to enable access?

Beyond Australia, this broader interpretation of the USO has informed other regimes. Universal Service internationally includes both universal coverage of telephony service and some form of non-discriminatory access, including some form of

⁸⁴ G. Goggin & I.R. Wilson, *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993.

uniform or regulated pricing mechanisms. An example of this strategy can be seen in the United Kingdom's Office of Communications (Ofcom) and their understanding of a USO that consists of: 'special tariff schemes for low income customers; a connection to the fixed network, which includes functional internet access; reasonable geographic access to public call boxes; and a range of services for customers with disabilities including the text relay service'.⁸⁵ The reforms to the United States telephone network in 1984 also followed this pattern of explicitly funding telephone services to economically disadvantaged areas.⁸⁶

The Basic Telecommunications Needs Project, published in 1990 by Balnaves and Richardson,⁸⁷ also looked at five components: the site or situation; a person's everyday life activities; the telecommunications purpose; technologies; and efficiencies gained. They contended that it is a much more complex task today (or at least in 1990) than previously to track people's use of telecommunications technology, let alone to determine what is essential and what is not across all of society. Services vital for one citizen may be irrelevant to others. The project maintained that a more complex view of a customised or at least more targeted Universal Service can be developed that relates to the concept that telecommunications needs depend on social context. The service provided must be appropriate in a given environment.⁸⁸ While this would initially seem to be

⁸⁵ Ofcom, *Ofcom Review of Universal Service Requirements*. London: Office of communications, 10th January 2005. http://www.ofcom.org.uk/media/news/2005/01/nr_20050110#content [accessed 2.8.2005].

⁸⁶ P. Temin & L. Galambos, *The Fall of the Bell System: A Study in Prices and Politics*. Sydney: Cambridge University Press, 1987.

⁸⁷ P. Gillard, 'Telecommunication User Research and Public Policy', B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press 1998, p. 136.

⁸⁸ P. Gillard, 'Telecommunication User Research and Public Policy', B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press 1998, p. 143.

consistent with the continuation of the process of producing an ever more tightly defined definition of the USO over time, perhaps this is starting to look at concepts that cannot be regulated within a broad Universal Service Obligation regime, and require other regulatory and also more interventionist strategies, as well as funding options?

Public Telephone Networks

The USO can be met by the provision of both private telephone lines to a place of residence or work, as well as by the provision of a public payphone. However these provide different types of service to those who use them in different contexts. In Australia, where a person may need to wait on hold for thirty minutes to talk to Centrelink, while possibly at the same time looking after three children, these can be important distinctions.

There were 33 778 payphones operated by Telstra across Australia in 2001-2002, and these are supplemented by another approximately 40 000 payphones that are operated by other providers⁸⁹ (although this latter group bears no relation to Telstra's USO service provision obligations). Between 1996-1997 and 2001-2002 there was a decrease of 12.3% in the total number of payphones (in 1996-1997 Telstra provided 37 292 pay phone service). This drop in numbers was related to a fall in revenue and usage of payphones, possibly attributable in part to the growth in mobile phone

⁸⁹ Australian Communications Authority, 'Most Payphones Fully Functional, But Repair Times need to Improve', *Media Release* No. 40. 1st November 2002.
http://internet.aca.gov.au/ACAINTER.65650:STANDARD:1769794414:pc=PC_936 [accessed 20.6.2005].

ownership and use over that period.⁹⁰ Of these Telstra phones in 2001 an audit commissioned by the Australian Communications Authority found that 99% had at least one of their two payment mechanisms working (either a phone card or coins) although 13% had at least one faulty payment mechanism. 97% of calls could be successfully connected to the emergency 000 number (a very important statistic given that 200 000 calls were made to that number on payphones in the 2001-2002 financial year).⁹¹ As of late 2003 there were approximately 190 of these pay phones modified to include a teletypewriter function for the hearing impaired.⁹²

There are two different types of users of public pay phones. For one group public payphones act as a supplement to private phone lines, to be used when outside the place of home or business for convenience. This is often how these utilities are portrayed in the media, as telecommunications to fit into leisure time:



Figure 6
1800 Reverse Web Advertising
<http://www.1800reverse.com.au/>
[accessed 22.6.2005]

90 Australian Communications Authority, *Using Telstra Payphones: Fact Sheet*. Melbourne: Australian Government. 21st July 2004.
https://www.aca.gov.au/consumer_info/fact_sheets/consumer_fact_sheets/fsc58.htm [accessed 9.7.2005].

91 Australian Communications Authority 'Most Payphones Fully Functional, But Repair Times need to Improve', *Media Release No. 40*. 1st November 2002.
http://internet.aca.gov.au/ACAINTER.65650:STANDARD:1769794414:pc=PC_936 [accessed 20.6.2005].

92 *TTY Payphone Locations*. <http://www.telstra.com.au/disability/ttypayphones/index.htm> [accessed 14.11.2003].

Increasingly, this user group consists primarily of those without the resources to make mobile phone calls. The growth in mobile phones is resulting in lower public phone revenue and a corresponding reduction in the number of public phones available across Australia.⁹³ The second group who use public phones are those who do not have access to a private line. This may be for a number of reasons however primary amongst these will be economic factors. This is significant since it illustrates that the USO while explicitly serving a geographic function, has built into it a mechanism where a different level of service is available to those who suffer more than just geographic disadvantage. Public phones represent the ‘safety net’ for this second group that contrasts uncomfortably with the ‘Universal Service’ of private lines for the majority.



The distribution of public phones with teletypewriters in Western Australia seems to suggest that either hearing-impaired people within Western Australia are quite affluent, at least in their choice of residence, or that the distribution of these services is focused almost exclusively on this first group of users. In this case at least how these services can be seen to primarily serve a Universal Service Obligation, rather than merely a convenience role is somewhat questionable.

93 The dominance of this understanding can be seen in the use of the ‘payphone’ over ‘public phone’ in both popular discourse and Telstra’s documentation.

Teletypewriter modified public telephones in Western Australia

Suburb/Town	Building	Location within Building	Street Address	
Burswood	Burswood Casino	Near Casino Reception Area	Level 1	Bolton Avenue
Cloverdale	Belmont Forum Shopping Centre	Inside shopping Centre		227 Belmont Avenue
Duncraig	Carine Glades Shopping Centre	Inside shopping Centre		473 Beach Road
East Perth	Westrail East Perth City Railway Station	Rail Terminal		40 West Parade
Forrestfield	Forrestfield Forum Shopping Centre	Inside main entrance		15 Salix Way
Fremantle	Fremantle Hospital	Outside Emergency	B3	2 Alma Street
Hillarys	Whitford City Shopping Centre	Near Just Jeans		470 Whitfords Avenue
Joondalup	Joondalup Shopping Centre	Outside Coles		420 Joondalup Drive
Karrinyup	Karrinyup Shopping Centre	Outside David Jones		200 Karrinyup Road
Leederville	Leederville College of Tafe	Outside E Block		43 Richmond Street
Leederville	Deaf Society	Main Foyer		16 Brentham Street
Mirrabooka	Mirrabooka Square Shopping Centre	Outside Big W		34 Yirrigan Drive
Mount Hawthorn	Mount Hawthorn Plaza Shopping Centre	Inside Centre		148 Scarborough Beach Road
Murdoch	Murdoch University	Outside Library Block		90 South Street
Nedlands	Queen Elizabeth 2 Medical Centre	Centre Reception		2 Verdun Avenue
Perth	Perth Airport	International Terminal East End	Ground Floor	Horrie Miller Drive
Perth	Royal Perth Hospital	Level 3 Lobby	Level 3	197 Wellington Street
Perth	Westrail Perth City Railway Station	Station Main Entrance		450 Wellington Street
Perth	Perth College of Tafe	Main Entrance	Level 2	12 Francis Street
Perth	Perth Trinity Arcade	In Arcade		72 St Georges Terrace
Perth	Perth Airport	Domestic Terminal QANTAS Departures	Level 1	Brearley Avenue
Perth	Perth Airport	Domestic Terminal Virgin Check In		Brearley Avenue
Rockingham	Rockingham Shopping Centre	Near Post Office		Council Avenue
Spearwood	Phoenix Park Shopping Centre	Inside Shopping Centre		254 Rockingham Road
Subiaco	Princess Margaret Hospital	Near Emergency	Level 4	95 Roberts Road
Subiaco	King Edward Hospital Ground Floor	Ground Floor	Ground Floor	374 Bagot Road
Subiaco	Subiaco Oval	Inside Gate 9		250 Roberts Road
West Perth	Kings Park Tourist Kiosk			Fraser Avenue

Figure 7
Teletypewriter Locations: Perth
<http://www.telstra.com.au/disability/ttypayphones/wa.htm>
 [accessed 14.11.2003]

Suburb/Town	Building	Location within Building	Street Address	
Albany	Albany Plaza Shopping Centre	Inside shopping Centre		38 Albany Highway
Broome	Paspaley Shopping Centre	Near Ice cream kiosk		Carnarvon Street
Bunbury	Bunbury Forum	Inside shopping Centre		Sand Ridge Road
Bunbury	Bunbury Centrepoint Shopping Centre	Inside shopping Centre		Blair Street
Busselton	Port Geographe Marina	Outside Marina Office		21 Spinnaker Blv
Carnarvon	Boulevard Shopping Centre	Inside entry		55 Robinson Street
Esperance	Esperance Boulevard Shopping Centre	Near Newsagency		Forrest Road
Fremantle	Fremantle Railway Station	Platform		30 Phillimore Street

Geraldton	Northgate Shopping Centre	Inside side entry	Lot 17	Chapman Road
Kalgoorlie	Kmart Shopping Centre	Inside Kmart		Brookman Street
Karratha	Karratha Shopping Centre	Inside entry		Welcome Road
Kununurra	Kununurra Hotel	Inside Hotel		Messmate Way
Middle Swan	Swan District Hospital	Emergency		Eveline Road
Northam	Boulevard Shopping Centre	Inside Shopping Centre		181 Fitzgerald Street
South Hedland	South Hedland Shopping Centre	Main Open entry area		Throssel Road
Thornlie	Thornlie Square Shopping Centre	North West Mall		330 Spencer Road

Figure 8
Teletypewriter Locations: Regional Western Australia
<http://www.telstra.com.au/disability/ttypayphones/wa.htm>
 [accessed 14.11.2003]

Public phones have a number of features that distinguish them from private lines. They are primarily for outgoing calls rather than receiving calls, and this function has a number of implications. Firstly it means that the user must pay every time they access the telecommunications system (receiving calls on a private line is free). Secondly, those connected to the network via public payphones add to the value of the whole network less than those who can receive calls through a private line. A network's value grows with each additional node, both because that node can access the whole network, but also because the whole network can now access that node.⁹⁴ In the case of public phones only the former is true. Public phones occur in a different type of social space to private lines, both business and domestic. This is further contrasted when mobile phones are also included in the discussion.

⁹⁴ This growth is measured by Metcalf's law.
 G. Gilder, 'Metcalf's Law and Legacy', *Forbes* ASA, 13th September 1993.
 This is examined further in Chapter Three 'Networks and Digitisation'

Argument Against the USO in Australia

Australia's existing USO focuses almost exclusively on the first of the five areas raised in *Reforming Universal Service*⁹⁵ with some additional services for people with disabilities, primarily deafness, to access additional equipment. However there are arguments that rather than being too restrictive, this position is in fact too expansive and largely unnecessary. This is based on a number of assumptions. Firstly that deregulation will produce better consumer outcomes. This argument trusts market forces to distribute these services. By forcing telecommunications companies to pay a USO levy, the majority of consumers inefficiently pay more for services. This position assumes that it is not as expensive or difficult to provide access to remote communities as the current USO regime assumes. Furthermore, the current Universal Service Obligation's prescriptive solution for the communications needs of remote and isolated communities may in fact be preventing other better alternatives being used or developed. While this position would seem to provide better consumer outcomes for the majority of users with the abolishment of the cross subsidisation for the USO, the faith of this position in market forces to deliver services to the geographically disadvantaged seems overly optimistic.

One of the more prevalent positions against the Universal Service Obligation is that Universal Service has already been achieved. That is, the telephone service penetration is at a level where it is as high as it will ever be, regardless of the USO mechanisms in place. In a similar situation to 'full employment', there will always be a percentage of the population that for one reason or another does not have access to

⁹⁵ G. Goggin & I.R. Wilson, *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993.

the telephone system. Senator Alston – who went on to become the federal Minister for Communications – in a 1990 essay expressed his views that Universal Service had been accomplished:

To many of those who use the term ‘Universal Service’ simply mean ‘the more, the better’. But with household penetration rates around 94% there is good reason to conclude that universal service has now been achieved. Whilst there may be some households which are not connected to the service for economic reasons it does not follow that economic assistance is necessarily appropriate. Some individuals may be nearly as accessible through a close neighbour’s phone, a pay phone down the hall, a phone at work or even the postal service.⁹⁶

The evidence does not support these statements. In a 1996 ABS survey, six years after Alston’s statement, 3.6% of households did not have a phone. Of these 22.2% said they did not want one thus 77.8% or 185,000 households (2.8% of the total households) therefore did not have one, but wanted one. Inability to pay for connection or operating costs remained the greatest barrier to this population. It would seem that a re-statement of Alton’s position would be that full or universal service has not been achieved, however that it is acceptable for a minority of the population to miss out or be disenfranchised. This position would seem to be in conflict with a democracy committed to universal and compulsory suffrage such as Australia.

Related to this idea that the need for the USO has been fulfilled is the notion that there are individuals who simply do not want access to the ‘standard telephone service’. For some this lack of ‘access’ is due to the ready availability of alternative technologies to the standard telephone service such as mobile services, while for

⁹⁶ R. Alston, ‘Time for some real competition’, as cited in G. Goggin, ‘Voice Telephony and Beyond’, in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 55.

others it is simply the lack of desire to have access to the participation in society that a phone line offers, due to the burden that comes from being readily contactable in the private space where they live or work. These people who do not need the bandaid of the USO are often used as a cover to say no one 'needs' the USO. However being too poor to get a phone connected is not the same as being happy just using a mobile for all calls.

The final argument against the USO is that it developed out of the government run monopolies of the 1930s and is effectively a solution from that time for a more modern problem.⁹⁷ This position states that the previous monopolies have evolved into the regulatory authorities of today's private enterprise driven telecommunications environment, yet they continue to cling to the notion of Universal Service as one of their previous central tenets, but one that it is no longer appropriate. This position views the USO in terms of the historic development of the telecommunications industry through public telephone and telegraph authorities. Public Telephone and Telegraph Authorities were born of 'the absolutist state', or at least in an era of much greater public service involvement in the economy. They have by default then become industry regulators and attempted with varying levels of success to provide Universal Service⁹⁸ or perhaps equal service, given there are often long waiting lists in that type of environment. The USO as a residual ideology from public monopolies seems to be a misunderstanding of how it has developed,

⁹⁷ G. Goggin, 'Voice Telephony and Beyond' in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 49.

⁹⁸ G. Goggin, 'Voice Telephony and Beyond', in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 52.

particularly in the Australian context in parallel to the developments in the former publicly owned monopoly that is now Telstra.

No Service?

A significant measure of the effectiveness and applicability of the USO in Australia, not only focuses attention on policy and access, but also monitors who – regardless of these initiatives – is still untouched or distanced from these services, despite the existing regulations. Who are the at risk groups, and what steps have been taken to alleviate their apparent disadvantage? In 2002, 97% of Australian households had at least one private telephone line (11% had more than one).⁹⁹ While there will be those in the remaining 3% of households who chose not to have a domestic private connection, there will be a significant number for whom access to such a connection is beyond their reach. This may be the case for a number of reasons, including geographic, economic and social factors. It has also been shown that if this group then has the option to access the network through public payphones, they will have a lower quality of connection than those with access to a private line. This three percent of households is not evenly distributed throughout Australian society. Rather there are groups that are significantly more likely to fall into this group including Aboriginal and Torres Strait Islander peoples, the disabled, women, and people of non-English speaking backgrounds.¹⁰⁰ In order to assemble methods and strategies to

⁹⁹ National Office of the Information Economy, *The Current State of Play: Australia's Scorecard*. Canberra: The Commonwealth of Australia, April 2002.
http://www.noie.gov.au/projects/framework/Progress/ie_stats/CSOP_April2002/CSOP_April2002.pdf [accessed 3.12.2003].

¹⁰⁰ G. Goggin, 'Citizen and Beyond: Universal Service in the Twilight of the Nations State' in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 103.

alleviate this disadvantage, it is also necessary to mark and assemble risk indicators and contextual explanations for this disadvantage.

While there are different spheres of disadvantage and these have been broken down for this analysis, this does not mean that they do not multiply for individuals who often may inhabit two or more of these broad categories. In each case the risk indicators can be seen as representing different types of social and economic disadvantage compounded by a corresponding lack of access to telecommunications services. However, different causes of disadvantage for different groups may require different types of interventions. What might work for one will not work for another, or may have a different impact. This section focuses specifically on the circumstances of Aboriginal and Torres Strait Islander peoples; people with disabilities; and residents of rural and remote communities.

When trying to create access to a service for neglected or marginalised groups, there are two complementary strategies to be undertaken. Demand generation activities are strategies focused on creating reasons for individuals to use a service that might be available but under-utilised. In the case of voice telephony, given the number of often essential services that the network supplies and its penetration into society, this is often the less effective of two available options. The second strategy involves supply generation, creating access to a service that was not previously accessible and addressing the reasons that this access was not present. Obviously the focus on one type of intervention over another has political dimensions. These can be seen to mirror understandings of telecommunications based on the type of public good that it represents. In Australia at the present time the preference for the former ‘self help’

strategies over the latter ‘government intervention’ model demonstrates once again the primacy of the regulated, rather than provided public good.¹⁰¹

Access within Indigenous Communities

In 1991, less than 10% of households in Aboriginal communities in Australia had telephones. In remote communities, this fell to less than one residential service per 100 people. In 1996, the Aboriginal and Torres Strait Islander Commission (ATSIC) found:

Little progress has been made towards identifying and meeting the telecommunications needs of rural and remote Aboriginal and Torres Strait Islander.¹⁰²

In 2001, a government report studied the 1 291 ‘discrete’ Indigenous communities in Australia,¹⁰³ of which 1 210 were considered to be in remote locations with poor access to telecommunications services. Many of these communities did not have access to even a single public payphone. This report found:

- Indigenous people continue to be the most disadvantaged in the country, with significantly lower average incomes, lower standards of education, higher levels of unemployment, poor housing conditions and

101 ‘Jobwise Self Help Groups.’ <https://ecsn.gov.au/jobwise/item.aspx?id=1074&txt=0&pmd=1>
‘Self Help for the Hard of Hearing.’
<http://www.hearing.com.au/ViewPage.action?siteNodeId=157&languageId=1&contentId=-1>
‘Specialised mental health service organisations – self help support groups service grants for non-government organisations.’ <http://meteor.aihw.gov.au/content/index.phtml/itemId/296492>
‘Indigenous Self Employment Program (ISEP) – formerly the Self Help Program.’
<http://www.workplace.gov.au/nr/exeres/7e1642ce-05a1-4552-88ae-bde26d7a8e4e.htm>
‘Self Help Landcare for New Farmers.’
<http://www.affa.gov.au/docs/nrm/landcare/pub/guide/factsheets/ms930364.html>
‘Self Help Guide to Rebroadcasting.’ <http://www.abc.net.au/reception/services/selfhelp.htm>
All these sites were accessed through the Australian Government web portal
<http://www.australia.gov.au/> on the 20th July 2005.

102 G. Goggin, ‘Voice Telephony and Beyond’ in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 58.

103 Comprising 109 994 individuals.

- higher levels of ill-health than the non-Indigenous population. In many instances, remoteness contributes to widening these disparities;
- programs to improve telecommunications services outside metropolitan areas (such as Networking the Nation and the Untimed Local Calls (Extended Zones) Agreement), although significant and valuable, have not been fully effective in meeting the specific needs of many remote Indigenous communities; and
- government service sectors, such as education, health and justice, are embracing the use of the Internet or videoconferencing to improve their services, particularly to under-served rural communities. However, this approach has generally not yet been extended to the more remote Indigenous communities.¹⁰⁴

There were a number of factors that the report noted that acted to impede access to telecommunications in these communities. There are a number of language barriers that exist in remote Aboriginal communities, with many people speaking a language other than English (LOTE) as their first language; and low levels of literacy in English.¹⁰⁵ There are a number of social problems related to alcohol and substance abuse that are highly prevalent in many of these communities. Indigenous people in Australia have a greater proportional representation of those in the community who are unemployed or on low incomes, are in prison or similar institutional care, and are homeless or in substandard accommodation. Additionally, the Indigenous community in Australia has a statistically lower life span, and poorer health, as well as a lower standard of education.¹⁰⁶ Many of the remote Indigenous communities have limited or no power supply.

104 Commonwealth Department of Communications, Information Technology and the Arts, *Telecommunications Action Plan for Remote Indigenous Communities*. Canberra: Commonwealth of Australia, May 2002, p. 5. http://www.dcita.gov.au/tel/indigenous_telecommunications/reports [accessed 4.7.2005].

105 In 1996 the ABS census found that greater than 69% of people who identified themselves as Aboriginal or Torres Strait Islanders speak a language other than English.

106 Steering Committee for the review of Government Service Provision, *Overcoming Indigenous Disadvantage: Key Indicators 2005*. Melbourne: Commonwealth of Australia, July 2005. <http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2005/keyindicators2005.pdf> [accessed 2.8.2005].

<i>Indigenous Discrete Communities</i>							
Main Source of Electricity Supply, by Community Size – All Communities							
Type of electricity supply	<20	20-49	50-99	100-199	200>	Total (a)	Reported Population
State grid	44	61	50	60	66	281	4,408
Community generators	85	70	30	33	81	299	50,990
Domestic generators	241	89	12	-	-	342	5,615
Solar	83	43	4	1	-	131	2,321
Solar hybrid	62	21	5	1	2	91	1,994
Other source	2	2	-	1	-	5	212
<i>All communities with an electricity supply</i>	<i>517</i>	<i>286</i>	<i>101</i>	<i>96</i>	<i>149</i>	<i>1,149</i>	<i>108,540</i>
No electricity supply	118	13	1	1	-	133	1,378
All communities¹⁰⁷	644	299	102	97	149	1,291	109,994
Source: ABS Cat. 2710.0 ¹⁰⁸							

Figure 9
Power Supply to Indigenous Communities in Australia
http://www.dcita.gov.au/download/0,2118,4_104432,00.doc
 [accessed 1.12.2003]

A lack of power makes telecommunications services problematic at best. Additionally despite the higher than average health problems amongst this population, a year 2000 senate inquiry found there was far more limited access to health care in remote communities, and there are a far higher proportion of health problems and related disabilities. In some communities, up to seventy percent of children had hearing difficulties. Not one community had a teletypewriter phone.¹⁰⁹ The combination of these problems acts to limit both the availability and accessibility of telecommunications services to this group in society, as well as any

¹⁰⁷ includes 'not stated'.

¹⁰⁸ Australian Bureau of Statistics; ABS Catalogue No.4710.0: *Housing and Infrastructure in Aboriginal and Torres Strait Islander Communities*. Canberra: Commonwealth of Australia; 1999; pp 16-17. as cited in http://www.dcita.gov.au/download/0,2118,4_104432,00.doc [accessed 1.12.2003].

¹⁰⁹ House of Representatives Standing Committee on Family and Community Affairs, *Health is Life: Report on the Inquiry into Indigenous Health*. Canberra: Commonwealth of Australia, May 2000.

demand for these services. However, the report did note that access to these services did have the potential to help alleviate some of the disadvantage and disenfranchise suffered by this group.

Overcoming the barriers to accessing telecommunications services in remote Indigenous communities presents a major challenge, and will require a commitment to action by all levels of government. The Commonwealth Government recognises that overcoming these barriers will not be possible simply by funding the installation of more telecommunications facilities in these communities. The limited take-up of USO telephone services in these communities demonstrates that guaranteeing supply, without addressing the significant demand-side issues, will not bring about higher take-up and effective use of telecommunications services.¹¹⁰

The difficulties in providing better communications services to communities who do not have a source of electricity, let alone access to schools of healthcare, is at the same time both a daunting and vital task. The failure of the existing USO regime to deal with even the telecommunications aspect of this problem is a stark illustration of both the limitations of an exclusive focus on geography when trying to ensure access to telecommunications services and the conception of telecommunications services as requiring regulation (already present), rather than provision. There are a number of programs that have been implemented to address some of this disadvantage in both Indigenous communities and across rural Australia,¹¹¹ including the Networking the Nations program, which provided funding for a variety of telecommunication access programs, albeit with limited success,¹¹² and the Untimed Local Calls (Extended Zones) agreement, although these have a wider focus than just Indigenous

110 *Telecommunications Action Plan for Remote Indigenous Communities*. May 2002 http://www.dcit.gov.au/download/0,2118,4_117045,00.doc [accessed 2.12.2003].

111 Telstra's latest document on its universal service obligation specifically includes resources for specialised liaison officers to improve communication and management of Aboriginal communities.

112 C. Morris & M. Meadows, 'Digital Dreaming: Indigenous Intellectual Property and New Communication Technologies', in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney UNSW Press, 2004.

Networking the Nation home page at the Department of Communications, Information Technology and the Arts.

http://www.dcit.gov.au/tel/role_of_the_telecommunications_division_and_contacts/networking_the_nation [accessed 15.5.2005].

communities. The government action plan outlined in May 2002, committed the government to funding of \$8.3 million dollars over three years,¹¹³ or less than one percent of the costs of the latest upgrade to the Australian Navy's submarine fleet.¹¹⁴

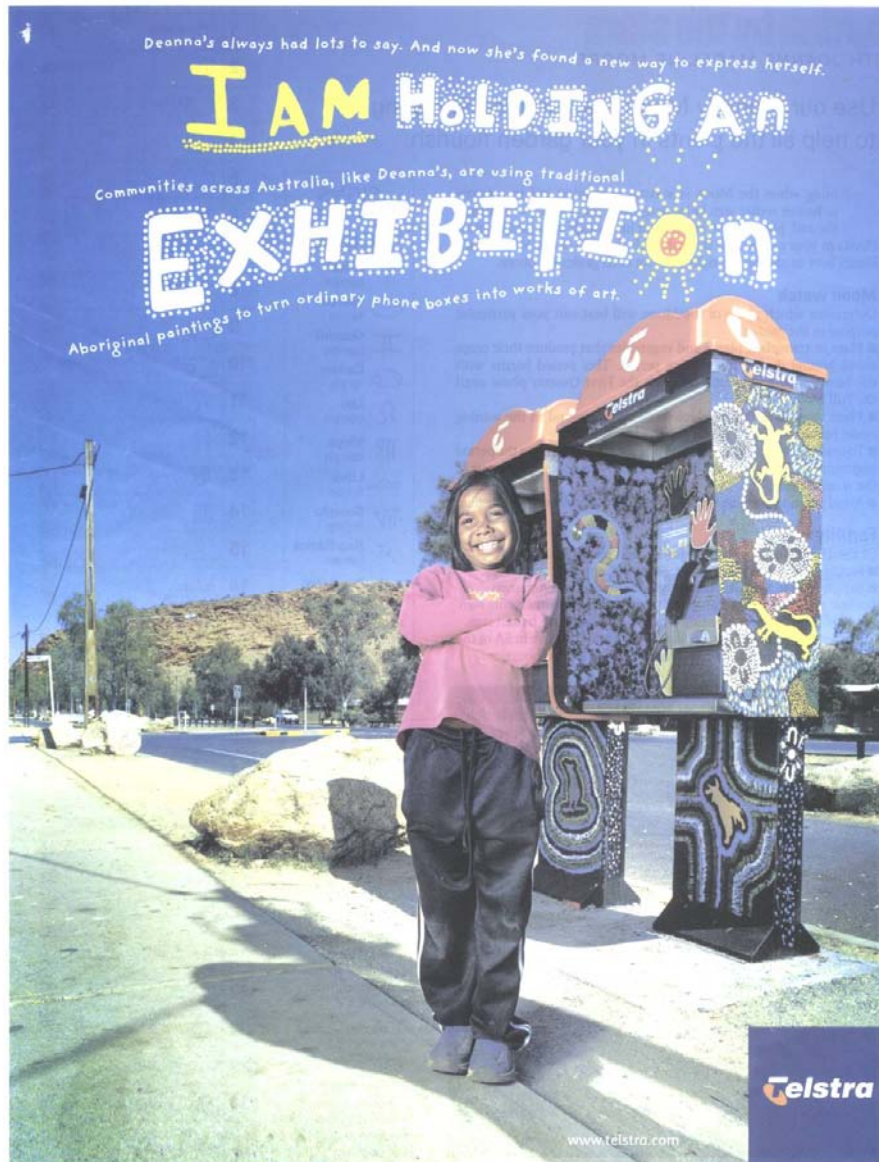


Figure 10
Telstra Advertisement, 2003

No home phone, no Internet, but the 'right' to paint pay phones.

113 *Telecommunications Action Plan for Remote Indigenous Communities*, May 2002
http://www.dcita.gov.au/download/0,2118,4_117045,00.doc [accessed 2.12.2003].

114 'One year on – Collins Class submarines on road to recovery', Department of Defence.
<http://www.defence.gov.au/media/2000/030800191.doc> [accessed 3.8.2005].

Access by People with Disabilities

The Australian Bureau of Statistics estimated in 1998 that 19% of the Australian population had some form of disability.¹¹⁵ The largest group of these are those who suffer from hearing related disability. Other groups included those with a visual impairment, those with speech or communications problems, the intellectually disabled, and those with mobility, or dexterity related disabilities.

The trend over time to more closely define the services provided as part of the Universal Service Obligation has worked against the interests of many people with disabilities in Australia who may require special equipment in order to effectively access the telephone network. The wide variety of additional services required by this group works against the imperative to tighten the definition of the services that are part of The Human Rights and Equal Opportunity Commission ruling in 1995.¹¹⁶ This ruling did indicate that this group needed to be catered for as part of the USO, through the distribution of teletypewriter phones. Their proportion of the total indicates that access to these services is not at the same level as it is for the able bodied. A similar trend can be seen once again in the case of public payphones, with the relatively low number of wheelchair accessible payphones (although they are far greater in number than those equipped with a teletypewriter). The case of Sam Boulding was a stark illustration of the importance of access to the telephone

115 Australian Bureau of Statistics, *Disability, Ageing and Carers, Australia, publication 4430.0*, 1998, as cited in Telstra's Disability Services Unit, *Telstra's Third Disability Action Plan: 2002 – 2004*, <http://www.telstra.com.au/disability/docs/dap0204.doc> [accessed 2.12.2003].

116 Scott and Disabled People's International (Australia) (DPI (A)) V Telstra, (HREOC, 1995, 15-15).

network for people with disabilities who will have less access to alternative essential services to those that are provided through the telephone network.

Telstra produced its first Disability Action Plan in 1996 to cover the years 1996-1998 in response to the HREOC ruling the previous year, and was registered with the commission and later audited for compliance. Since then there have been two subsequent plans, the 2002-2004 document was the first to introduce measures for individuals with intellectual disabilities.¹¹⁷ This plan explicitly acknowledged that it is more than just a response to the carrier's USO obligations, and that Telstra is explicitly following a business strategy to facilitate the purchase of Telstra's products by those potential customers with various disabilities.

Access within Rural and Remote Communities

In Australia, the geographic access of rural and regional areas to telecommunications service has been the main priority of the USO. Following the partial sale of Telstra, services to these areas have become the political focus of USO related debates. However it is notable that there are lower penetration rates for telephone services in these areas. While the number of rural and regional households that had access to a private phone line in 1997 was not a great deal lower than the national average. 5.2% of households in regional areas were without access, as opposed to the national average of 3.4%.¹¹⁸ There were a higher number of individuals without access at this

¹¹⁷ Telstra's Disability Services Unit, *Telstra's Third Disability Action Plan: 2002 – 2004*. <http://www.telstra.com.au/disability/docs/dap0204.doc> [accessed 2.12.2003].

¹¹⁸ Farmwide Pty Ltd, *Unmet Demand for Online Services in Rural Australia*. Rural Industries and Research Corporation, 2000. <http://www.rirc.gov.au/reports/HCC/00-177.pdf> [accessed 2.12.2003].

time than these figures suggest as the households measured did not include the homeless people and remote Aboriginal communities.¹¹⁹ A proportion of this lower level of telephone penetration can be attributed to the higher costs of making calls, when the majority of the network is more than a local call distance away, and the corresponding reduction in network utility that comes with these increased costs. Telecommunications services in regional areas take on an added importance when the alternatives to essential services offered through the telephone are less accessible, due to both availability and distance to alternative sources. As noted above there are a number of government programs currently in place to help address disadvantage in relation to this group, and the attention brought to this area again by the Estens enquiry into telecommunications service may result in more of this type of program.

While each of these at risk groups present their own unique challenge to public policy, the changing nature of the telecommunications industry in Australia, and the USO in particular, have impacted on the ability to access telecommunications throughout society. In the early 1990s Telstra was demanding security deposits from low income earners before providing them with a telephone, as it was concerned that they would be unable to meet their payment obligations, by contrast now the same group are targeted for access to a low cost telephone service that provides for incoming calls only.¹²⁰

119 Farmwide Pty Ltd, *Unmet Demand for Online Services in Rural Australia*. Rural Industries and Research Corporation, 2000. <http://www.rirdc.gov.au/reports/HCC/00-177.pdf> [accessed 2.12.2003]. Why these communities were not seen as households is a bit of a mystery, but does reinforce the idea that this group falls outside of the citizenship of mainstream Australian society.

120 Telstra makes money from these incoming calls, and increases the value of the network as a whole as the result of these connections.

The National Office of the Information Economy (NOIE), which was recently disbanded, compared Australia's progress in telecommunications penetration with a number of other OECD countries.

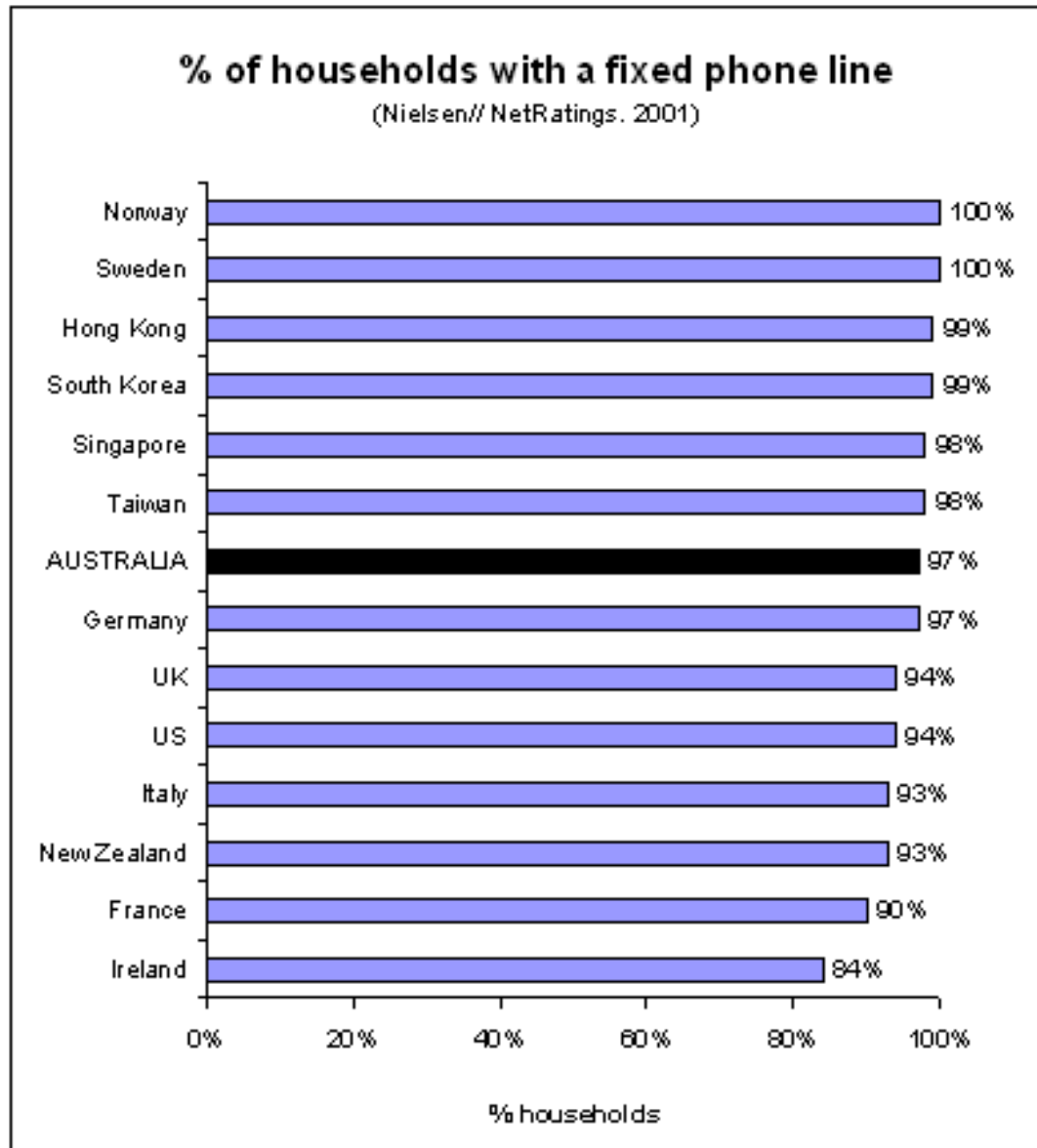


Figure 11
Fixed Telephone Line Penetrations Rates

http://www.noie.gov.au/projects/framework/Progress/ie_stats/CSOP_April2002/CSOP_pages/fixed_telephone_line.htm

[accessed 1.12.2003]

The telecommunications network is a global construct, of which Australia is a relatively small subset. Up to this point this chapter has focused on the application

and provision of the Universal Service Obligation within Australia, and to a lesser extent the United States and the United Kingdom. While it is possible to compare USO provisions and telephone penetration rates with other relatively similar countries, there is a much wider distribution of service regimes throughout the world once less developed countries become part of the analysis. How have access to telecommunications been articulated as a global public good, and what of a global USO?

Global Telephone Access

In 1994, the then vice president of the United States, Al Gore delivered a speech on the Information Superhighway broadband network concept at an International Telecommunications Union Conference that discussed the gulf between the telecommunications rich and telecommunications poor countries. The US National Information Infrastructure (and ultimately the Global Information Infrastructure) was based on five principles:

- 1) to encourage private investment
- 2) promote competition
- 3) create a flexible regulatory framework that can keep pace with rapid technological and market changes
- 4) provide open access to the network for all information providers
- 5) ensure universal service.¹²¹

121 A. Gore, 'Global Information Infrastructure', Buenos Aires: International Telecommunications Union, 21st March 1994. <http://www.digitalearth.cn/readingroom/basicreader/others/telunion.htm> [accessed 2.8.2005].

G. Goggin, 'Citizen and Beyond: Universal Service in the Twilight of the Nation State', in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 95.

One year later at Telecom 95, then South African president Nelson Mandela set out a set of principles that he envisioned would enable the full participation of both developed and developing countries in building an information society:

- 1) we should strive towards global universal service in telephony and global access to the information superhighway
- 2) the expansion of global information infrastructure should be based on partnership and rules of fair competition and regulation, at both national and international level
- 3) the information revolution should be geared towards enhancing global citizenship and global economic prosperity
- 4) a diversity of paths towards the achievement of national information societies should be respected
- 5) the evolution of policy for the development of an equitable global information society should be coordinated internationally to ensure the sharing of information and resources
- 6) the education of young people with regard for the skills needed for living in an information society should be prioritised.¹²²

While Gore's speech promoted the development of private enterprise, consistent with the ideology that informed the Information Superhighway concept, Mandela by contrast viewed global Universal Service as an extension of global social rights, and through that promoted the idea of transnational citizenship. If the telecommunications system and voice telephony in particular is to be seen as a kind of global public good, then the high level of disparity in access to this supposedly non-excludable entity will have to be addressed. Both Manhattan and Tokyo individually have more telephone lines than the entire African continent.¹²³ This disparity in distribution and access is in part a result of pricing. In the case of telecommunications, the marginal costs of network goods in terms of data transportation and communications are close to zero, so pricing is based on the

122 N. Mandela 'Telecom 95 Opening Ceremony', Geneva: International Telecommunications Union, 3rd October 1995. <http://www.itu.int/TELECOM/wt95/pressdocs/manddist.html> [accessed 2.8.2005]

123 I. Kaul, I. Grunberg & M. A. Stern (eds), *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999, p. 239.

recovery of the sunken costs to set up exchanges and lay cable, rather than reflecting the marginal cost of each call. As Habib Sy notes:

the cost of these services is the result of a conscious distributive decision on how to share the burden of the initial investment.¹²⁴

There are myriad sites on earth with limited telecommunications access. It is not so much that existing infrastructure is too expensive to use, rather that the infrastructure simply does not exist. Once again there is a tendency to see regulation as the solution when provision needs to take priority.

In 2000, the OECD published *E-Commerce for Development: Prospects and Policy Issues*.¹²⁵ This report noted the fear of a digital divide forming between countries. However it also noted the ability of advanced telecommunications services to move the benefits easily from areas of abundance to those of scarcity, giving it a great levelling potential. The report recommended that in the future telecentre networks may be the best option for providing telecommunications services to remote or poor areas in developing nations.¹²⁶ The South African government runs a telecentres program, funded in a similar way to the USO in Australia by a tax on telecommunications companies.¹²⁷

124 J. Habib Sy, 'Global Communications for a More Equitable World', in I. Kaul, I. Grunberg & M. A. Stern (eds), *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999.

125 A. Goldstein, & D. O'Connor, *E-Commerce for Development: Prospects and Policy Issues*. Paris: OECD Development Centre, 2000.

126 While the relative limitations of a type of public payphone approach to the delivery of telecommunications have been already acknowledged, staffed telecentres offer a number of advantages when dealing with populations that may require help with technological literacy. R. Gómez & P. Hunt (eds), *Telecentre Evaluation: A Global Perspective*. Quebec: International Development Research Centre, 1999.

127 The World Summit on the Information Society convened for the first time in Geneva in December 2003, and has its concluding meeting in November 2005. This summit was convened specifically to develop strategies for facilitating global participation and access to the global 'information society'.

The voice telephone network is a key enabling technology for the Internet. The modem plugs into it. However this technical imperative initiates a relatively simplistic type of Internet access. There are numerous technologies that make it possible to bypass the traditional copper wire telephone network as the infrastructure for Internet access. A far greater issue for Internet access, or a far greater enabling technology, is the ability of an individual to read and write, and basic infrastructure such as running water and power. Without these, Internet access is of little value or consequence. The telephone system turns out to be at the edge of enabling technology, as it becomes crucial only at the point where the other fundamental enabling technologies or services are present. There are as yet no alternative delivery systems. In the Australian context, it is critical that at a remote cattle station the voice phone line has sufficient clarity to support data speeds that enable access to the Internet. While that station may find an alternative access through a satellite service, two hundred kilometres down the road at a remote Aboriginal community, with no regular electricity, limited access to health care and education, and where up to 70% of the children have hearing problems, the quality of the data service through the payphone (if one is present at all) is not the key missing link to Internet access.

If the telephone system is not the key enabling technology for the Internet why then examine the USO? One of the key objectives of this thesis is to determine the type of language and discourse that can be employed to better enable public policy to ensure access to the Internet, and through that access the ability to participate in society as full citizens for all members of society, as well as the potential implications of lack of full citizenship for those that may be denied that access. From this perspective, it

is important to have an understanding of the type of language that has been employed and the outcomes produced when dealing with voice telephony. Attention must also be placed on access to that network for those who might otherwise miss out as enabled through the Universal Service Obligation. The USO effectively provides a historical model for the methodology and politics of supply and use of communications technology throughout society. While it may be the case that every new form of media is legislated on the basis of the mistakes made in the preceding media, that does not mean that the later cannot also be used to inform the former. All technology is transitory technology. All technology is liminal, and all liminal sites are ambiguous. It is a fallacious notion that any technology is an end point, or an end game for public policy.

President Mandela's speech in 1995 referred to the notions of transnational citizenship and global public goods.¹²⁸ One decade later, these ideas are both consistent and at odds with understandings of the increasing global movement of capital, but also critically the global flow of information, whether it be through voice telephony or data transfer. Governments have always passed national laws on what legally can be said and published, often restricting access to pornography, giving recourse to those who are slandered, and regulating what government may consider subversive political speech. The Internet stretches across national borders with limited opportunity for regulation from the nations with which it interfaces. Relations with national legal systems are transformed in this transnational digital environment. Before the new relationship between citizenship and sovereignty that this

128 N. Mandela 'Telecom 95 Opening Ceremony', Geneva: International Telecommunications Union, 3rd October 1995. <http://www.itu.int/TELECOM/wt95/pressdocs/manddist.html> [accessed 2.8.2005]

transformation entails is examined in detail through Part II, it is important to shift focus from the telecommunications network that informs the contemporary USO policy and focus on the construction of the Invisible Empire. The next chapter begins this exploration by looking at the point of interface between the digital and the analogue, the gateway to the Invisible Empire that manifests at the borders of Empire, the screen.

Chapter 2

The Gates of Empire: Internet Access



Figure 12

The Damascus Gate of Jerusalem

<http://www.bibleplaces.com/oldcitygates.htm>

[accessed 29.3.2005]

Between the idea
And the reality
Between the motion
And the act
Falls the Shadow
Between the conception
And the creation
Between the emotion
And the response
Falls the Shadow

Between the desire
And the spasm
Between the potency
And the existence

Between the essence
And the descent
Falls the Shadow

From *The Hollow Men*
By T.S. Eliot

The Screen

‘The Gates of Empire’ as a chapter, motif and metaphor, occupies a distinct and important space and function in this doctoral research. While the preceding chapter tracks the relationship between the Australian Government and the development of the national telecommunications network, this chapter seeks to describe the point of access to the Internet. This moment of entry has a space, time, context, history and literacy. Within this chapter, this moment is stretched, interpreted and researched. Each person faces the screen alone when they access the Internet. The ideology of the solitary surfer has consequences. The screen is the point where the hardware and software that support the digital environment meet the wetware of the knowledge and literacy of the individual seeking access. It is the gateway to the Invisible Empire. The screen, for those online, is the point, space and surface at which a person’s off screen self interfaces with their extended digital identity. It facilitates an extension of their self, not just a specific screen, but many different screens, from their home or work computer, through to their mobile phone or personal desktop assistant (PDA), to Internet access points spread throughout the analogue world from public libraries to Internet cafes.

The technology magazine *MIS (Managing Information Systems)* produces an annual ranking of Australia’s top 100 users of IT in Australia. Their key criteria is the number of screens at use in the organisation. While they note the potential flaws

inherent in this system of measurement,¹ they assume that this will approximate to the number of users, or at least points of access that a company provides. The top twenty five of this list are:²

- 1 [DEPARTMENT OF EDUCATION AND TRAINING \(VIC\)](#): 187 000 screens
- 2 [DEPARTMENT OF EDUCATION AND TRAINING \(NSW\)](#): 175 000+ screens
- 3 [DEPARTMENT OF DEFENCE](#): 126 300 screens
- 4 [DEPARTMENT OF EDUCATION AND TRAINING \(WA\)](#): 77 000 screens
- 5 [UNIVERSITY OF NSW](#): 45 600 screens
- 6 [NATIONAL AUSTRALIA BANK](#): 45 000 screens
- 7 [COMMONWEALTH BANK OF AUSTRALIA](#): 40 300 screens
- 8 [TELSTRA CORPORATION](#): 36 000 screens
- 9 [CENTRELINK](#): 35 600 screens
- 10 [ANZ BANKING GROUP](#): 31 000 screens
- 11 [WOOLWORTHS](#): 30 000 screens
- 12 [WESTPAC BANKING CORPORATION](#): 28 500 screens
- 13 [COLES MYER](#): 27 765 screens
- 14 [AUSTRALIAN TAXATION OFFICE](#): 25 000 screens
- 15 [QUEENSLAND HEALTH](#): 22 000 screens
- 16 [BHP BILLITON](#): 20 000 screens
- 17 [AUSTRALIA POST](#): 19 550 screens
- 18 [UNIVERSITY OF QUEENSLAND](#): 18 205 screens
- 19 [QANTAS](#): 18 000 screens
- 20 [DEPARTMENT OF HUMAN SERVICES \(SOUTH AUSTRALIA\)](#): 16 169 screens
- 21 [IBM AUSTRALIA](#): 16 000 screens
- 22 [UNIVERSITY OF SYDNEY](#): 14 863 screens
- 23 [INTACT](#): 14 550 screens
- 24 [BUNNINGS BUILDING SUPPLIES](#): 14 000 screens
- 24 [MONASH UNIVERSITY](#): 14 000 screens

As would be expected, this list is dominated by large organisations, with a heavy representation of public service departments, the four major banks, the two biggest retailers, three large Australian companies (Qantas, Telstra and BHP) and major universities. INTACT, the Canberra based telecommunications and utilities supplier, is a surprise inclusion, as is Bunnings, the hardware supplier that tied in 24th position with Monash University.

¹ T. Plakalo, 'Editors Note', *MIS*.

http://www.misweb.com/mis100viewednote.asp?by=rank&doc_id=40&rgid=2&year=2004 [accessed 22.1.2005].

² *Special Editions: MIS 100 Australia 2004* | By Rank.

<http://www.misweb.com/mis100viewby.asp?by=rank&rgid=2> [accessed 22.1.2005].

For those without access, this multitude of screens represents a collective barrier. Without the literacy to enable a developed digital self, the screen is a closed gate, excluding access and even comprehension of what lies beyond. Similarly the absence of hardware or software to drive the screen will also render the gateway closed. There are three primary elements to access: hardware, software and wetware. Each invoke necessary literacies. Institutional attention, let alone corporate interests, stresses hardware and software. These three factors are influenced by the context in which they manifest both off screen and in the digital environment they enable. This fourth aspect of access then is the culture-ware or cultware. All four factors, when aligned, determine the threshold at which access becomes possible and also the size of the gateway available. The quality of the gateway is primarily determined by both the weakest link in these three components of access and the surrounding cultware in which they manifest. All four components interact and influence the utility of the other three. The quality of the gateway is an important factor in determining the utility of access. However there is an 'event horizon': a point at which messages no longer pass through the gateway and access is not available. At that stage, nothing traverses the gateway at the screen. At its most basic level, the digital world is a matrix of zeros and ones. In a 1948 issue of *The Bell Systems Technical Journal*, these small units of information were labelled 'bits' by Claude Shannon, an abbreviation of binary digits.³ These bits represented a gateway on an electronic circuit, one that was either opened or closed. Access to the Invisible Empire mirrors this technical specification.

³ C. E. Shannon, 'A mathematical theory of communication', *Bell System Technical Journal*. July and October, 1948, volume 27, pp. 379-423 and 623-656. <http://cm.bell-labs.com/cm/ms/what/shannonday/shannon1948.pdf> [accessed 28.4.2005]. In this article Shannon attributed the origin of the word to J. W. Turkey.

Margaret Wertheim in *The Pearly Gates of Cyberspace*⁴ noted the similarity between the description of the heavenly paradise of the New Jerusalem presented in The Bible's 'Book of Revelation' and the promised land configured in and through the Internet. Wertheim interrogates the association between the Internet and Christian ideology:

Just like the early Christians, they promise a transcendent heaven – a utopian arena of equality, friendship and power.⁵

The ideal of a perfectly ordered utopia both on earth and transcending the limits of the mundane has resonance for both the early adaptors of the Internet and the end of days. In The Bible the holy city is guarded by twelve gates, each made of a single pearl (from which her book partly takes its name).

The twelve gates were twelve pearls, each gate made of a single pearl. The great street of the city was of pure gold, like transparent glass.⁶

Through these gates, the good followers of God are given access and all others are excluded. Michel Foucault also constructed a model of utopia accessed by the projected self, in this case a mirror producing a projected self in the heterotopia it generates:

The mirror is, after all, a utopia, since it is a placeless place. In the mirror, I see myself there where I am not, in an unreal, virtual space that opens up behind the surface; I am over there, there where I am not, a sort of shadow that gives my own visibility to myself, that enables me to see myself there where I am absent: such is the utopia of the mirror. But it is also a heterotopia in so far as the mirror does exist in reality, where it exerts a sort of counteraction on the position that I occupy. From the standpoint of the mirror I discover my absence from the place where I am since I see myself over there. Starting from this gaze that is, as it were, directed toward me, from the ground of this virtual space that

⁴ M. Wertheim, *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet*. Sydney: Doubleday 1999.

⁵ M. Wertheim, *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet*. Sydney: Doubleday 1999, p. 18.

⁶ Revelations 21: 21.

<http://www.biblegateway.com/passage/?search=Revelation%2021;&version=31>; [accessed 29.4.2005].

is on the other side of the glass, I come back toward myself; I begin again to direct my eyes toward myself and to reconstitute myself there where I am. The mirror functions as a heterotopia in this respect: it makes this place that I occupy at the moment when I look at myself in the glass at once absolutely real, connected with all the space that surrounds it, and absolutely unreal, since in order to be perceived it has to pass through this virtual point which is over there.⁷

Foucault uses the mirror as a metaphor for a placeless space, a mode of utopia. Equally, it makes a good metaphor for the projected digital self. Yet a mirror has a far lower threshold of literacy necessary to use it. The ability to recognise the self through the mirror is a trait shared by humans and many other animals, but not all have the level of intellectual development, expertise or experience, the literacy, to recognise their virtual projected selves in the mirror.⁸ Foucault noted of these places:

Heterotopias always presuppose a system of opening and closing that both isolates them and makes them penetrable. In general, the heterotopic site is not freely accessible like a public place. Either the entry is compulsory, as in the case of entering a barracks or a prison, or else the individual has to submit to rites and purifications. To get in one must have a certain permission and make certain gestures.⁹

While the quality of a specific individual's access may vary, there is a threshold at which access is either on or off. Within this construction, there is no shared place where those with access and those without it share a manifestation – where the shadow falls there is no shared 'in between'.¹⁰ Unlike the traditional gate in the wall

⁷ M. Foucault, 'Of other Spaces', Public Lecture 1967. Translated J. Miskowiec <http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html> [accessed 28.4.2005].

⁸ Gallop, Anderson and Shillito conducted a famous study in 1970 that determined that while Chimpanzees can learn to recognise a mirror as a reflection of themselves, a number of other species (in this case stumptailed, rhesus and cynomolgus) could not, leading them to speculate that this ability was limited to monkeys that closely resemble human, and specifically the great apes (family pongidae). G. Gallup, J. Anderson & D. Shillito 'The Mirror Test.' In M. Bekoff, C. Allen & G. Burghardt (eds). *The Cognitive Animal*. Cambridge, Massachusetts: MIT. Paperback edition, 2002. pp. 325-334.

⁹ M. Foucault, 'Of other Spaces', Public Lecture 1967. Translated by J. Miskowiec <http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html> [accessed 28.4.2005].

¹⁰ While there is now shared space where both these groups manifest, that is not to say that there is no awareness of 'the other'. The Internet is frequently represented in popular culture, through television, print and radio. The assumption that access to the Internet is part everyday life, as portrayed in the media highlights the disadvantage of those who are outside of access. Similarly those who have access are aware that there are those who do not have access. In practice however, off

that guards a physical core, these gates guard a non-corporeal Invisible Empire. While barbarians could storm the gates of Rome without the literacy to understand the workings of the Empire within, when an army masses to physically strike at these gates the only consequences are a broken monitor. While these screens are heavily distributed throughout myriad societies I have two within easy reach on my desk, my computer screen and my mobile phone, they do not appear as gates. They are disguised as a type of television set with a keyboard. Without the ability to identify and transverse these portals, the digital underclass – or those denied access – have no experience of what or who exists on the other side. Questions cannot be asked at the gate to Invisible Empire. There is no common space in which the digital subaltern and the digital citizen cohabitate. There is no space at which translation can occur. These gates to Invisible Empire are numerous. The walls cannot be breached, and the gates are only open for the citizenry with the required literacy. This literacy in the codes of access is an absolute requirement to pass the gates of Invisible Empire. The digital citizen transverses these gates alone. It is a point where the off screen self interfaces the digital self. Social interaction occurs on either side of the screen, but not at the gateway itself. Citizens access the Internet alone. This ideology of the individual has important consequences.

screen these two groups are less likely to interact. Of the 24% of Americans who have never been online, 31% know few or no others that have ever been online.

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003, p. 25.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

The Matrix of Access

The screen – the gateway at the border of Invisible Empire – is the point or surface at which the hardware of the computer, the software it enables, and the wetware of the person seeking access all collide and interface, providing access. The suffix ‘ware’ comes from the old English word ‘waru’ meaning goods. In this case each of the three wares can be seen as a distinct type of good or commodity with their own discrete qualities. While access is an essentially atomising experience, with each person sitting alone at the screen, it also occurs in a broader context both in the analogue environment at which the site of access is positioned and also the digitised environment that is accessed through the screen. This context is a fourth ‘ware’ – cultware – and it is necessary to complete an understanding of Internet access.

Hardware is a word appropriated by the information communications technologies (ICT) dialect. While originally used to refer to metal goods, it has been reinterpreted in the context of ICT to represent the physical equipment associated with computing. In relation to the Internet, this argument can be extended further to the physical infrastructure of a communications network. Hardware can be defined in this context as the physical equipment that is used to generate, transport, store and interpret digital data. Hardware, relative to the other aspects of access, represents a somewhat traditional type of commodity. To generate computer and communications hardware requires a constancy of production. Each unit, once developed, requires the same resources to produce.¹¹

11 Chapters Three more closely examines the rapidly developing nature of hardware, and its implications in the context of the Internet.

Software is another term that is attributed to John W. Turkey, this time from 1957.¹² It refers specifically to the computer programs held in a computer's memory. In this context and at its most basic, software describes the construction of the TCP/IP protocols and provides the matrix for bits to be translated by hardware. Typically, there are different layers of software running on a computer, at one level acting as an interface with hardware to enable the computer to operate, at the other acting as the interface with wetware, where it provides a platform of interaction with a computer user. Software in the context of this construction of Internet access also includes the digitised content held in computer memories. This context differs from the more traditional understanding of software as programs that manipulate content or operate hardware. Content does not necessarily make things happen, but rather from this new perspective it represents stored data. Software needs hardware to support its operation. Conversely, hardware needs software to activate its potential value.¹³

Software, both as a program and digital content, is starkly different to a traditional analogue commodity. Computer hardware has a high component of its value determined by the initial development of the technology. Both the knowledge required to design and integrate that commodity as well as significant start-up costs

12 Given the importance of this label to computing and the Internet, I had hoped to provide an online reference for this article. Unfortunately, not only is the full text only available through propriety academic databases, there are very few references pointing to the location of the original publication in *American Mathematical Monthly*. There are no hard copies of this journal dating back prior to 2000 in Western Australia. Fortunately it has been scanned and is available through *JSTOR: The Scholarly Journal Archive*. In this case accessed through the Murdoch University Library. <http://0-www.jstor.org.prospero.murdoch.edu.au/> [accessed 21.7.2005].

J. W. Turkey, 'The Teaching of Concrete Mathematics' *The American Mathematical Monthly*. January 1958, volume 65, number 1, pp. 1-9.

13 Firmware is a variant of software that is sometimes identified, and refers to software that is locked into the operation of hardware and is not subject to change. It is stored in read only memory (ROM) as opposed to random access memory (RAM).

to any production in addition to research and development. Once this initial outlay and set-up is achieved, there is a constancy of production that requires the same value to be spent to produce each additional unit after the first. Software, however, manifests in a very different environment. Once a piece of content has been digitised – for example either the writing of a program or the digitisation of formerly analogue content, such as a musical recording – there is no additional cost to make a perfect copy, or a thousand copies of the original. This process requires the construction of no production facilities and the consumption of no extra resources to produce each unit.¹⁴ The distribution of these copies will similarly be limited only by the size of the individual set of data, how many bits it consists of and the bandwidth available for the transmission of the file. The value of software for its creator is maintained not by possessing and selling it as an analogue commodity, but rather by agreed understanding and implementation of their copyright.¹⁵

14 Obviously there will be a component of hardware system resources required to support each copy, but for all intents and purposes this cost is negligible.

15 The conflict between the Internet as a shared public space and the ownership of digital information is more closely examined in Chapter Five, ‘Digital Sovereignty’.

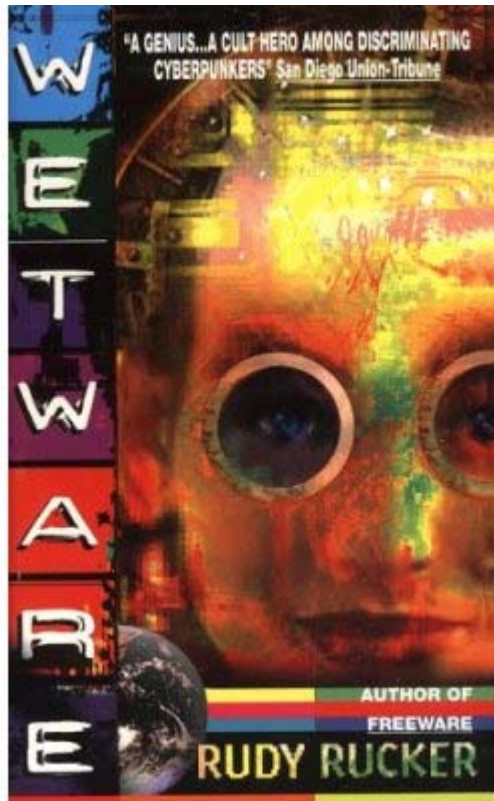


Figure 13

Wetware, The Novel

http://www.amazon.com/exec/obidos/tg/detail/-/0380701782/qid=1120797046/sr=8-1/ref=pd_bbs_ur_1/102-3119511-3055356?v=glance&s=books&n=507846
[accessed 7.7.2005]

Wetware is a term less widely deployed or known than hardware or software. It traces its origins back to cyberpunk literature.¹⁶ Rudy Rucker's book with this title

16 The notion of cyberspace is derived from science fiction, most famously from William Gibson's 1984 book *Neuromancer* and Neal Stephenson's *Snow Crash* published in 1992. Cyberspace in these books is a virtual world generated by computers where people go and virtually interact with electronic representations of society, its computer systems and other users. Individuals are projected into this world as avatars, where their digital 'selves' are represented and they experience this world through a virtual reality interface that to an extent mimics the real world. The 1982 movie *Tron* is an earlier, although less acknowledged predictor of cyberspace in popular fiction. The more recent the *Matrix* trilogy also shares this conception of fictional cyberspace.

W. Gibson *Neuromancer*. New York: The Berkley Publishing Group, 1984.

N. Stephenson, *Snow Crash*. New York: Bantam Doubleday Dell Publishing Group, 1992.

The Matrix. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 1999.

The Matrix Reloaded. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 2003.

The Matrix Revolutions. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 2003.

Tron. Written by Steven Lisberger & Bonnie MacBird, directed by Steven Lisberger, Walt Disney Productions, 1982.

won the Philip K. Dick Award for best science fiction paperback in 1989. Also known as liveware or meatware, wetware refers to a living organism and more specifically, the human operator of a computer. In this context, wetware refers to the knowledge and experience held in the brain of an individual seeking to access the Internet, their ability to operate the computer interface at the screen and their literacy within the digital environment on screen. Unlike both hardware and software, wetware manifests as an analogue rather than digital platform. Content from the screen and audio from the speakers are interpreted through the eyes and ears of the user, for analysis in their brain. In the context of Internet access, wetware manifests at the meeting of hardware and software, where the value of both these components can then be activated.

Image Removed

Figure 14
Cartoon by Randy Glasbergen, 2003
<http://www.glasbergen.com/>
[accessed 23.5.2005]

Text in the analogue environment is little more than a curious decoration when one is without the literacy to read it. It is through literacy that the value of its message – the content, rather than just form – is activated.¹⁷ This evaluative matrix stretches from banal understandings, for example that Coca-Cola is refreshing, to critical literacies, such as a red light at an intersection means ‘stop’. Within Australia, this literacy requires an understanding of Latin script and the English language. Dibbell noted within the digital environment created by LambdaMOO that ‘the commands you type into a computer are a kind of speech that doesn't so much communicate as *make things happen*, directly and ineluctably’.¹⁸ This type of text is more powerful than a street sign in the analogue environment. It has a far greater value that can potentially be activated through a sufficient level of literacy. Rather than literacy being used only to interpret the text, in this environment the text can be used, with sufficient literacy, to initiate activity. Dibbell was reporting the purely text-based environment that existed in 1993 which consisted of written words. Early UNIX programmers¹⁹ used to be referred to as wizards. They typed seemingly inexplicable lines of command into a computer, a type of magic language that only they understood making things happen in the digital world.

17 C. Lankshear, ‘Frameworks and workframes: Literacy policies and new orders’, *Unicorn*. 1998, volume 24, number 2.

M. Macken-Horarik, ‘Exploring the requirements of critical school literacy: a view from two classrooms’, in F. Christie & R. Mission (eds), *Literacy and Schooling*. London: Routledge, 1998.

L. Unsworth, ‘Changing dimensions of school literacies’, *Teaching Multiliteracies Across the School Curriculum*. Melbourne: Macmillan, 2001, pp. 7-20.

18 J. Dibbell, ‘A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society’, *The Village Voice*. 23rd December 1993.

19 UNIX dates back to 1969, when Ken Thompson created a program called the Uniplexed Operating and Computing System (UNICS). The operating system subsequently changed but the name remained and was shortened to UNIX.



Figure 15
Coca-Cola Advertising and Traffic Lights in Kings Cross, photograph by Paul Green.
[http://www.sydneymedia.com.au/html/custom/2274-image-
 details.asp?Keywords=Scenic%2Ccity%2Cnightlights&ImageID=4300](http://www.sydneymedia.com.au/html/custom/2274-image-details.asp?Keywords=Scenic%2Ccity%2Cnightlights&ImageID=4300)
 [accessed 30.5.2005]

Wetware is a distinct type of commodity. It is often compared to software, only on a different type of operating platform. While this might be true at a very superficial level, wetware has a constancy of production. Information and literacy is not simply downloaded into a person. It has to be taught, learned and embedded in a social environment. Each unit will require the same resources to produce as the one before. As the development of wetware will require analogue input to the brain where it is being developed, there is constancy in the time taken for this production. Hardware represents a material commodity. Software is commodified through the use of copyright laws. Wetware consists of myriad literacies, developed through both formal and informal learning and experience. Providers of wetware include the education sector from kindergarten through to universities. Wetware literacies are often built upon existing literacies. Being able to read and write (and ideally type) is a prerequisite in learning how to use email. There is a broader social good in developing the literacy of citizens of a Nation State which extends beyond commodification.

Some literacies are traded, often by the same producers of hardware and software. For example Cisco Certified Internetwork Experts²⁰ and Microsoft Certified Systems Engineers²¹ are valuable certifications. In this context, Microsoft has managed to leverage control of the wetware required to operate its software, to increase the value of its software. Microsoft no longer provides support for the Microsoft Certified Systems Engineer Course that qualified an individual to work with their Microsoft Windows NT4 release and has withdrawn permission to use copyrighted material for this course from all certified training organisations. This qualification has been superseded by the equivalent certification for the Windows 2000 software system. Thus companies that do not upgrade to the new software are less able to find individuals with the required wetware to maintain their systems.

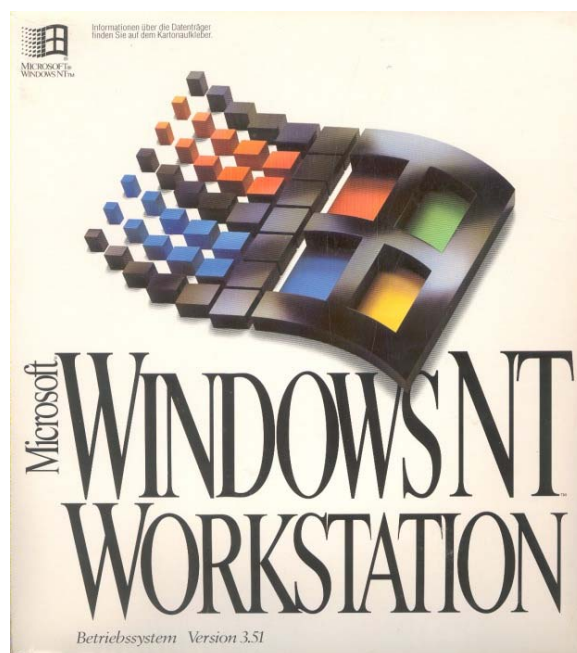


Figure 16
Windows NT

²⁰ Cisco Certified Internetwork Expert. <http://www.cisco.com/en/US/learning/le3/ccie/index.html> [accessed 20.7.2005].

²¹ Microsoft Certified Systems Engineer. <http://www.microsoft.com/learning/mcp/mcse/Default.asp> [accessed 20.7.2005].

As well as being learned, literacy and wetware can also be borrowed. If someone does not have the skills required they can seek help. In some cases this may involve paying for a professional in the field, but often it will involve seeking an informal alternative source of wetware. Computer literacy within households is not evenly distributed. It is often separated by both age and gender.²² Men have a different perceived right to leisure than women and also have more time to become technologically literate.²³

Trinity: Hello Neo.

Neo: How do you know that name?

Trinity: I know a lot about you.

Neo: Who are you?

Trinity: My name is Trinity.

Neo: Trinity.... The Trinity that cracked the IRS dbase?

Trinity: That was a long time ago.

Neo: Jesus!

Trinity: What?

Neo: I just thought um.... you were a guy.

Trinity: Most guys do.²⁴

One or more relatively literate members rely on the expertise of those with more literacy to establish and maintain Internet access for them. Green, Holloway and Quinn note this distribution of literacy does not always reflect traditional family household power structures. There is a perceived fear that these literacies are skewed towards younger family members:

Children are considered both to be ‘technically competent and at risk from their technical skills’.²⁵ Anxiety is further exacerbated by the fear that parents

²² K. Keightley, ‘Low television, high fidelity: taste and the gendering of home entertainment technologies’, *Journal of Broadcasting and Electronic Media*, June 2003, p. 236.

D. Morley, *Home Territories: Media Mobility and Identity*. London: Routledge, 2000.

²³ K. Keightley, ‘Low television, high fidelity: taste and the gendering of home entertainment technologies’, *Journal of Broadcasting and Electronic Media*, June 2003, p. 236.

D. Morley, *Home Territories: Media Mobility and Identity*. London: Routledge, 2000.

²⁴ *The Matrix*. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 1999.

²⁵ G. Valentine, S. L. Holloway & N. Bingham, ‘Transforming Cyberspace: Children’s interventions in the new public sphere’, in G. Valentine & S. L. Holloway (eds), *Children’s Geographies: Playing,*

are losing control of their children's Internet activities because of their own (the parents') technical competencies being surpassed by those of their children.²⁶

Green *et al* noted the findings of a 2001 Australian Broadcasting Authority (ABA) survey of Australian households which found that this fear was not necessarily accurate. Most often the household Internet 'expert' was an adult. In the online surveys, 70% of parents and 58% of children and teenagers nominated one of the parents as the most likely to be asked for help with the Internet. In families where a child was the main resource, they mostly were the eldest child in the family and aged 13 – 18 years. In a few homes, children aged 10 years and under were perceived to be the most skilled.²⁷

In these instances, it is more appropriate to talk about a household, rather than individual wetware. The reliance on one member for access can however be hazardous. A person without the literacy to activate access – a digital subaltern, who relies on another source of wetware, an individual who activates access for them – is vulnerable to access being curtailed if access to that individual is lost. Children leave home, partners die. There is a difference in being taught skills and having someone 'do it for you', through facilitated co-dependence.²⁸

Living Learning. London: Routledge, 2000, p. 157, as cited in L. Green, D. Holloway & R. Quinn '@home Australian family life and the Internet' in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004, p. 90.

26 L. Green, D. Holloway & R. Quinn '@home Australian family life and the Internet' in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004, p. 90.

27 K. Aisbett, *The Internet at Home: A Report on Internet Use in the Home*. Sydney: Australian Broadcast Authority, 2001, p. 4. <http://www.aba.gov.au/internet/research/home/> [accessed 25.4.2005].

28 The 2003, Pew Internet and American Life Project, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide* In 2003 listed three different groups of individuals within the United States who do not use the Internet. 'Net Dropouts' comprise some 17% of the total population. This group consists of individuals who have previously been online, but due to a variety of normally technical, hardware reasons are no longer connected. The second group, including these

There are different types of access. While it may appear a binarised issue – literacy is present or absent – there are factors that effect the quality of access, or the size of the gate.²⁹ These are the levels of access and understanding: a network of encoding and decoding skills. The greater the range and literacy level, the greater the access. The screen does not provide a democratic gateway. It provides different levels and modes of access. Once a person is within the digital realm, they choose to develop distinct translations and modes. In the first instance though, there is also a threshold of literacy required to achieve access to the gates of Invisible Empire. Without this threshold literacy, no others can be developed. There is a dangerous difference between someone who can't swim and a weak swimmer who falls into a swimming pool. An infrastructure must exist. There must be an actual telecommunications network and a way to access it. Secondly, content must be present along with other people to communicate with. Finally, there must be a literacy with the mode of communication. While the first two of these factors draw the most attention from politicians and activists as the most important enablers, it is the third requirement of literacy that takes a second place, yet is of primary importance in this area. Without

mentioned in the text, 'Net Evaders', comprise 20% of the population. This group consists of individuals who are able to use the Internet through 'borrowed literacy', using other people to access through the screen on their behalf. The final group, the 'Truly Disconnected' make up nearly a quarter of the population in the United States at 24%. These individuals have no access to the Internet and very little contact with anyone who does. This group, the 'Digital Subalterns', are the focus of Chapter Eight.

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

²⁹ L. Unsworth, 'Changing dimensions of school literacies', *Teaching Multiliteracies Across the School Curriculum*. Melbourne: Macmillan, 2001, pp. 7-20.

C. Lankshear, 'Frameworks and workframes: Literacy policies and new orders', *Unicorn*. 1998, volume 24, number 2.

M. Macken-Horarik, 'Exploring the requirements of critical school literacy: a view from two classrooms', in F. Christie & R. Mission (eds), *Literacy and Schooling*. London: Routledge, 1998

B. Street, *Literacy in Theory and Practice*. Cambridge: Cambridge University Press, 1984.

the literacy to use the Internet, the content and technology to deliver that content is of little worth. As Julia Thomas notes:

It is vital that as many people as possible not only 'have access' to the Net in one way or another, but actually are using it. For those considering more challenging innovations in electronic democracy, this issue is even more critical.³⁰

The three components of access – hardware, software and wetware – intersect and dialogue. All three components form a matrix of access. However, the ability to attain hardware, software and wetware are distinct. An awareness of how and where to attain these literacies requires the activation of cultware. Without an intersection, then access is not possible.

30 J. Thomas, 'Horizons of expectation: Imaginary trajectories of electronic government', in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004, p. 265.

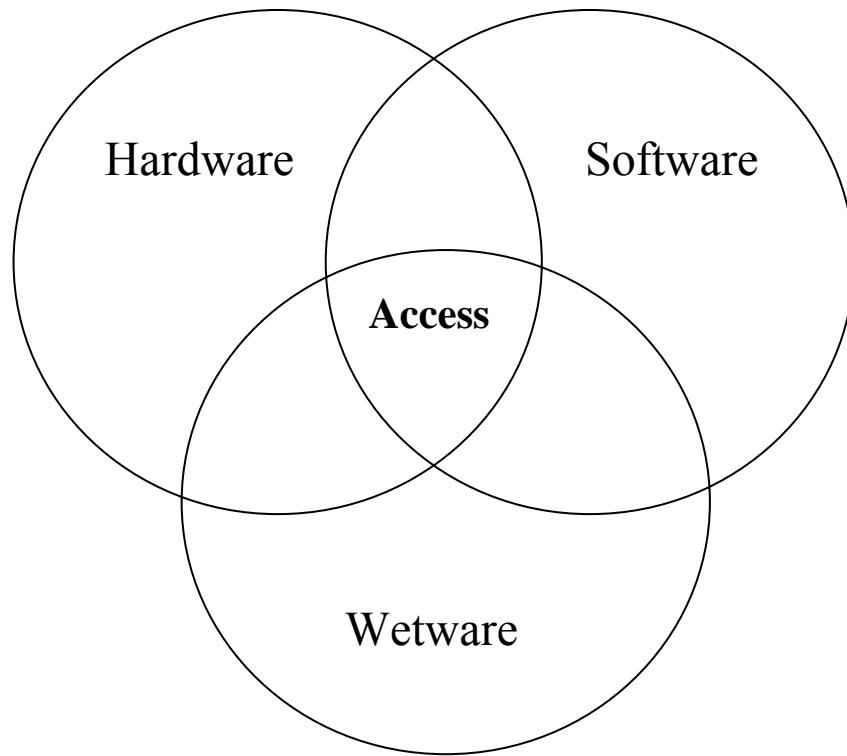


Figure 17
The Matrix of Access

As can be seen in the diagram above, the size of the overlap determines the size of the gateway and the value of access. It is also evident from this illustration that there is an interaction between each of these components which can alter both the value of the access obtained and the point at which the gateway becomes a viable point of access. A highly proficient user with developed wetware is able to extract more from hardware and software. They have expert knowledge in the use of this more than a novice user.

This knowledge can be used to create barriers, to keep the less knowledgeable out.

As Bailey noted:

The Net nation deploys shared knowledge and language to unite against outsiders: Net jargon extends beyond technical language to acronyms both benign (BTW, 'By the way') and snippy (RTFM, 'Read the fucking manual'). It includes neologisms, text-graphical hybrids called emoticons, and a thoroughgoing anti-'newbie' snobbery. Like any other community, it uses language to erect barriers to membership.³¹

While there are many places online where the highly literate gather to interact and exchange ideas, these places tend to be segregated by the type of expert knowledge being exchanged. Conversely, many digital spaces are created specifically to allow for interaction and transfer of knowledge between the expert user and the novice. These spaces tend to be more general in their application of expertise. The ABC actively promotes its online *Tech Talk* web site, where the less experienced or literate can seek advice on digital matters in non digital media, such as its radio broadcasts.

³¹ C. Bailey, 'Virtual skin: Articulating race in cyberspace', In M. A. Moser, (ed), *Immersed in Technology: Art and Virtual Environments*. Cambridge, MA: The MIT Press, 1996, pp. 29-49.

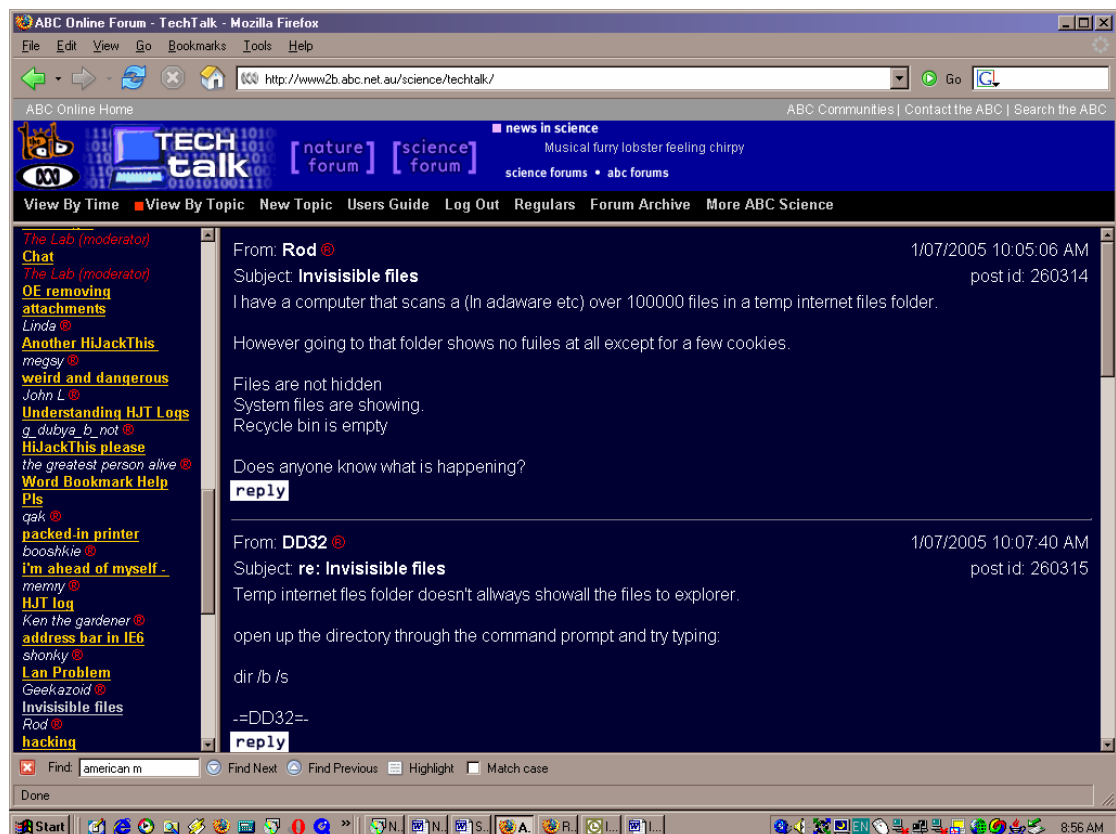


Figure 18
 ABC Online Tech Talk Forum
<http://www2b.abc.net.au/science/techtalk/>
 [accessed 10.7.2005]

A high bandwidth Internet connection is able to deliver a faster service to a user with outdated software or less experience. Well designed software can overcome some of the limitations of hardware and alleviate the requirement for a high level of wetware in a user. Originally Web pages were created by HTML programmers with basic text editors such as Notepad. The development of WYSIWYG (what you see is what you get) web authoring software such as Dreamweaver, enabled people to focus their literacy on web page design and content, rather than the code.

An individual highly trained in the use of Internet mediated technology has an aligned and highly complementary level of wetware. Using this skill base they are better able to make use of a given set of hardware and software than a user with less

developed wetware. They are also able to expand the point at which access is available – the Internet event horizon – by making better use of any marginal levels of software and hardware that are available. The types of wetware required to facilitate these two functions are not the same. Wetware, like hardware and software, is not homogenous and varies in suitability to different tasks.

The development of the World Wide Web software by Tim Berners-Lee in the early 1990s provided the foundations for the enormous growth in the population of people using the Internet. At its most basic level, the World Wide Web enabled a greater potential for access by eliminating one mode of literacy a user needed to access content on the Internet. Not only was the content organised in a way that facilitated easier access,³² but the level of wetware, or training required to use a web browser was much lower than the preceding Internet enabling software. Software could be used to stretch the space for access, limited until that point by the requirements of wetware.

Aidworld – <http://www.aidworld.org/Wiki.jsp> – is a not for profit organisation whose motto is ‘taking the World Wide Web world-wide’.³³ In order to overcome the hardware restrictions experienced in less developed countries, both in terms of processing power and bandwidth, this organisation has developed Loband <http://www.loband.org/loband/main>, an online software tool that strips back the data from Web pages so that they can be more easily displayed through a low bandwidth connection and on less powerful computers, while maintaining the textual

³² This was further enhanced by the development of various web based search engines.

³³ Aidworld Homepage. <http://www.aidworld.org/Wiki.jsp?page=Home> [accessed 9.5.2005].

information. The web site of the Australian Rules Football League, (AFL) is sponsored by Telstra Broadband and is designed to promote the take-up of high bandwidth, Internet access. The AFL site is normally displayed in this form:



Figure 19
Australian Football League Web Site
<http://afl.com.au/>
[accessed 22.4.2005]

It requires 258kb or 258 000 individual bits of information to be downloaded in order to display. Once it has been translated by loband it displays without the same depth of imagery, but with the same functionality:

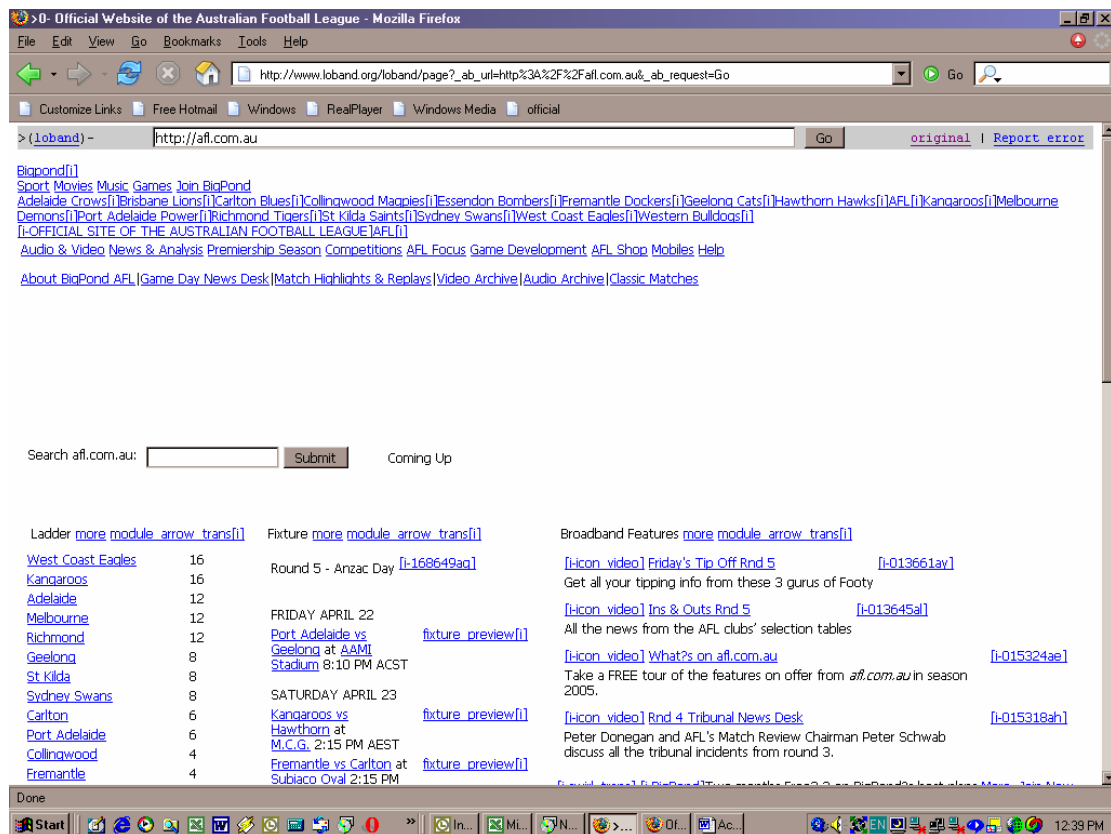


Figure 20
Australian Football League Web Site: translated by Loband
http://www.loband.org/loband/page?_ab_url=http%3A%2F%2Fafll.com.au&_ab_request=Go
 [accessed 22.4.2005]

This form requires less than half the bandwidth to display in the same time at a total size of 113.7kb. The use of software in this case expands the access available by reducing the potential limitations of hardware.

Each person at the screen faces the gates of the Invisible Empire alone. Like the pearl gates of the New Jerusalem, the faithful gain entry and the rest are excluded. However the atomised nature of access means that this passage, or more critically exclusion, is not performed in the view of others. There is no 'between' for the shadow to fall. Those within the digital environment have no perception of those excluded, the digital underclass does not manifest on the screen. Similarly the digital

underclass has no knowledge of the environment from which they are excluded. Off screen there are no obvious markers of gender, class or race to highlight membership of the digital underclass or digital citizenship respectively. Notions of development and evolution are critiqued.

Image Removed

Figure 21
Evolution of the Digital Citizen
<http://lifewithalacrity.blogs.com/photos/uncategorized/evolution.jpg>
[accessed 1.6.2005]

Cultware

While the act of accessing the Internet is a solitary and atomising experience for the user, it occurs in a wider context. In order to interrogate an understanding of Internet access, the on and off screen context of the potential user must be monitored. This requires the evaluation of a fourth component: cultware. If the terms hard, soft and wet demand a sexual metaphor, it is cultware that gives them context and reclaims the romance from pornography. This is the point of this thesis where the

interdisciplinary approach becomes significant. The insight of Cultural Studies theorists and their imperatives requires a great contextual understanding of how and why access emerges. Therefore, an original contribution to knowledge in this thesis is the tethering of software, hardware and wetware to their attendant culture.

At the turn of the century, the OECD³⁴ broke down the factors that act to inhibit or enable Internet access across a given society – or more specifically in their case the factors that influenced the emergence of the Information Economy. These three categories are readiness, intensity and impact. Readiness refers to the level of infrastructure that exists to support Internet Access. While this includes technological infrastructure, it also refers to a broader social and commercial infrastructure. The report measures the take up of Internet based-technology within houses and businesses. This take up measure consists of the public infrastructure to support this such as telephony and power supply, as well as social infrastructure, such as education and literacy. Literacy here includes both the conventional understanding and a broader computer literacy. The OECD also included in this area commercial infrastructure to enable and facilitate electronic commerce. Intensity monitors the level of Internet use: how much time people are online and what they do once they are there. Impact refers to the effect of that Internet access on an individual and, the impact of the information economy on society. The Internet affects people's recreation, the way they interact with each other, work and shop.

³⁴ OECD discussion paper, 'defining and measuring electronic commerce', Paris: OECD, 10th February, 2000.

These three factors are not only understood in terms of the atomised individual at the screen accessing the Internet. The context of that access in relation to the rest of society should also be investigated. This is the fourth 'ware' involved with Internet access culture-ware or cultware. Unlike the other three components of access, cultware is a commodity that is hard to define and value. Pierre Bourdieu in his innovative article 'The Forms of Capital'³⁵ touched on the concept of cultware when detailing his theories of cultural and social capital. Bourdieu criticised traditional economic theory as being too focused on economic capital, or the capital that is most easily converted into tender. He argued that a wider understanding of economic practice required an investigation that encompassed more than just a mercantile focus. This narrow understanding that Bourdieu criticised is replicated in the analysis of information technology in general and the Internet in particular, with the primary focus on hardware and software. Both comprise commodities that can be easily understood in terms of economic capital. Similarly wetware, knowledge and literacy is an increasingly commodified entity with a cost to obtain and a value to be realised.³⁶ Cultware comprises an equal if not more important field of understanding within the digital environment which is often overlooked for want of an appropriate label for the discussion.

35 P. Bourdieu, 'The Forms of Capital', translated by R. Nice, http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98. [accessed 15.9.2004].

36 K. Robins & F. Webster (eds), *The Virtual University? Knowledge Markets and Management*. London: Oxford University Press, 2003.

R. Zelmsky, G. Wegner & W. Massy, *Remaking The American University: Market Smart and Mission Centered*. New York: Rutgers University Press, 2005.

J. Tiffin & L. Rajasingham, *The Global Virtual University*. London: Routledge Falmer, 2003.

A. Potts, *Civic Leaders and the University: State and Municipal Politicians' Perspectives on Higher Education in Australia*. New York: Peter Lang Publishing, 2003.

F. Newman, L. Couturier & J. Scurry, *The Future of Higher Education: Rhetoric Reality and the Risks of the Market*. San Francisco: Jossey – Bass, 2004.

P. Teixeira, B. Jongbloed, D. Hill & A. Amaral (eds), *Markets in Higher Education: Rhetoric or Reality*. Dordrecht: Kluwer, 2004.

Bourdieu divided cultural capital into the embodied state, the objectified state and the institutionalised state. The embodied state represented what an individual knows, the ‘long lasting dispositions of the mind and body’³⁷ that can only be acquired through a process of learning and is not easily transferred to another, as with other forms of capital. This is clearly analogous to wetware. In the objectified state, capital takes the form of cultural goods, machines, works of art, books, dictionaries and the knowledge of how to use them. In the digitised environment, these become types of software and the wetware to utilise that software. Finally, cultural capital in an institutionalised state refers to the markings that denote and guarantee different types of cultural capital, such as a university degree or medical qualifications. In these circumstances, cultural capital starts to inhabit the space bordered by both wetware and cultware.

Social capital for Bourdieu represented a personal asset that is developed through families, groups and individuals being ‘connected’, and providing these individuals with an advantage over others with less social capital:

the aggregate of actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition – in other words to membership in a group³⁸

37 P. Bourdieu, ‘The Forms of Capital’, translated by R. Nice, http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98.

38 P. Bourdieu, ‘The Forms of Capital’, translated by R. Nice, http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98.

This view was in contrast to other theories of social capital, notable in the works of Putman, Coleman and Fukuyama. For these writers, social capital was a community asset consisting of social networks of trust solidarity and reciprocity.³⁹ The difference in access to the shared added value of social capital needs to be understood in terms of cultural literacy, the specific knowledge or wetware, which allows access to the capital accessible through cultware.

Cultware is therefore the context in which hardware, software and wetware manifest to allow for Internet access. It consists of both the digital environment in which the multiple users of the Internet's Invisible Empire reside and the analogue environment in which those users find themselves off screen. The Canadian theorist Harold Innis famously linked the concepts of space and time to transport and communication in *The Bias of Communication*.⁴⁰ Cultware links literacy to identity and then back to space and time.

39 D. Schugurensky, *History of Education: Selected Moments of the 20th Century*, Department of Adult Education, Community Development and Counselling Psychology. The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT). http://fcis.oise.utoronto.ca/~daniel_schugurensky/assignment1/1986bourdieu.html [accessed 15.9.2004].

40 H. Innis, *The Bias of Communication*. Toronto: University of Toronto Press, 1951.

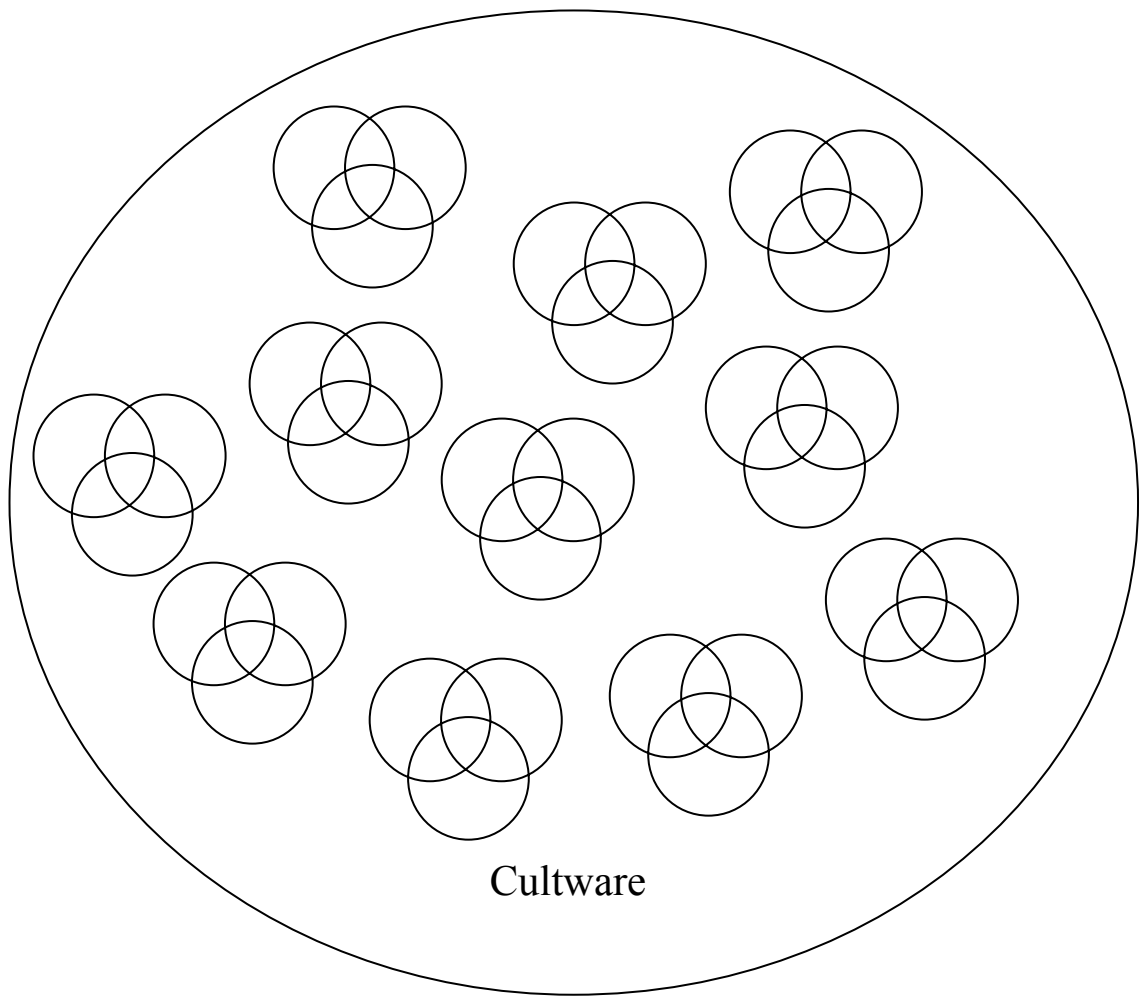


Figure 22
Cultware

While the development of the World Wide Web increased access to the Internet by making it easier to use and navigate, thereby reducing the wetware requirements, this development can be tracked as the driver behind the subsequent massive growth in Internet penetration rates. That growth in population itself caused the total value of the Internet to increase. Each additional user on the network increased the total value of the network in accordance with Metcalf's Law.⁴¹ This growth in the value of the network is understood as a function of cultware. The implications and drivers of this growth are explored in the next chapter. The online environment was enriched with more participants and the value of its cultware increased. The Web reduced the level of literacy required to access the Internet. It also generated a far more complex online environment that requires its own specialised literacies to activate.

The digitised environment represented by the Internet is a vast store of potential social and cultural capital, manifest in the wetware of other users and the software or content that is available through the network. It represents the activated value of the totality of hardware that supports the network. This grouping of resources, and the synergy within that group of different resources, is made available as a function of cultware. To access this capital requires a variety of literacies relating to all four components of Internet access. Cultware often becomes embedded in social practice to the point where individuals forget their literacy. This has the potential to create confidence, arrogance and social amnesia. The political consequences are potentially dire.

⁴¹ G. Gilder, 'Metcalf's Law and Legacy', *Forbes ASA*, 13th September 1993. This is explored in more detail in Chapter Three, 'Networks and Digitisation'.

All literacies are wetware. To develop, they require time and capital to be invested in each individual. For those who possess a high degree of Bourdieu's social capital, these literacies develop in a more conducive environment, as the individual's social positioning facilitates the development of their embodied capital. For those who do not have a situation that fosters the development of these literacies, access to the potential capital available through the Internet is limited, or non-existent. Bourdieu notes that those from different class backgrounds produce different academic achievement within the same learning environment. The role of differing levels of domestic transmission of social capital plays in this disparity.⁴² As Anderson and Irvine noted 'people are not poor because they're illiterate: they are illiterate because they're poor'.⁴³ The presence of an 'expert' with Internet literacy in a given household will impact on the level of access of other members of that household. In the digital environment, this layer of class disadvantage is both replicated and compounded by those who had long left the family home of their parents before the Internet became available, and for whom the Internet has played no prior role in their network of social capital.

Cultware is a function of the analogue off screen world in which access has the potential to occur. There is a different distribution of wetware across households in Australia. The level of cultware – in this case measured by access to surrounding literacies – is a measure of the access to technology and infrastructure off screen.

42 P. Bourdieu, 'The Forms of Capital', translated by R. Nice, http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Göttingen: Otto Schartz & Co., 1983. pp. 183-98.

43 G. Anderson & P. Irvine, *Critical Literacy: Political Praxis and the Postmodern*. Albany: SUNY Press, 1993.

The off screen cultware environment of Manhattan Island is significantly different to that of sub-Saharan Africa. Having a notebook computer with wireless access capability would have very different utility for the average resident in each place, although in each instance an individual brings their unique circumstances, of literacy, economic resources and social networks that will influence their prevailing level of cultware.

Image Removed

Figure 23

Cartoon by Fran

<http://www.cartoonstock.com/search.asp?x=a&keyword=mobile+phones&Category=Not+Selected&Boolean=Or&Artist=Fran&submit=Search>

[accessed 12.7.2005]

Off screen, the digital underclass and the digital citizen share space. While there are no obvious markings setting these two groups apart, the level of cultware in that environment affects the potential for translation and communication to occur between these two groups. Conversely, the greater the level of cultware, the more apparent and profound the disadvantage of those without access becomes. Race,

class and gender manifest at the analogue side of the screen and it is there that the context of these markings becomes important.

Within Australia, there are three separate tiers of government: federal, state and local. At each level there have been interventions attempted to provide for greater access to the Internet. These strategies have varied greatly in their scope, form and the ideology that inform them.⁴⁴ All these programs have existed in an environment of rapid growth in Internet penetration. As the growth starts to taper off – with those that were predisposed to gaining access finding that access – people left outside the gates of Empire become a more definite and disadvantaged group, albeit distributed invisibly though the population. The early adaptors, the technicians, did not concern themselves about those who were left off screen. This is an important consequence of their status as a minority online and that the border between empowered and disempowered would soon begin rapidly admitting new people. When the disempowered are a small minority, moving ‘up’ to empowered status is arduous, or not an option. With the screen acting as a type of event horizon for those without access, messages cannot pass back from the other side. The digital underclass is invisible, having no manifestation within the walls of Invisible Empire. The consequences of this invisibility are dire.

44 The success of these activities has been mixed. As noted in Chapter One, of the funding made available to Networking the Nation rural telecommunications projects by the Commonwealth Government through the partial sale of Telstra, it is estimated that 80% have stalled or failed. C. Morris & M. Meadows, ‘Digital Dreaming: Indigenous Intellectual Property and New Communication Technologies’, in G. Goggin (ed), *Virtual Nation: The Internet in Australia*. Sydney UNSW Press, 2004.



Figure 24
St Stephens Gate of Jerusalem
<http://www.bibleplaces.com/oldcitygates.htm>
 [accessed 29.3.2005]

The gateway to the Invisible Empire is traversed by each individual alone. Others are encountered either within the walls of Empire on the screen, or off screen in the analogue world. Derrida theorised that resistance to colonial oppression could be instigated from the existing system of unequal power relations.⁴⁵ However, in the construction of the Invisible Empire there is no shared space where the digital citizens and the digital subaltern share space in the context of those identities. At the interface of Invisible Empire, these spaces between the centre and the margin are no longer apparent. There is no shared space of leeway for resistance to develop. It is within this environment that the impact of digital colonisation will begin to manifest and it is this phenomenon that will require the intervention of public policy if the resulting disadvantage is to be alleviated.

⁴⁵ J. Derrida, *Writing and Difference*. Translated by A. Bass, London: Routledge, 1976.

There is actual shared space between the subaltern and the digital citizen.⁴⁶ They exist off screen side by side, even though there are not necessarily any obvious markings to separate or identify them. Off screen, this lack of markings is what renders the Empire invisible. Conversely on screen for the citizen, the subaltern is entirely absent. They have no manifestation and leave no space unfilled by their absences. In the Invisible Empire, the empowered never meet the disempowered.

The gateways of the Invisible Empire do not just sort the citizen from the subaltern. Through the gateway, on screen the Invisible Empire transforms many traditional understandings of identity, economics and political power. Part II of this thesis turns its focus to the ‘on screen’ construction of the Invisible Empire. The foundations of this analysis, what occurs when traversing the gateways of the Invisible Empire, the transformations that occur through digitisation, and the consequences for the construction of self are the focus of the next chapter, ‘Networks and Digitisation’.

The screen acting as a gateway creates an edge, a hard line through the grey and amorphous interface of traditional core-periphery relationship and power structures. This sets the Invisible Empire aside from what has gone before and requires new theories and understandings to enable and actualise any resistance to what is increasingly becoming a perpetuated structure of inequality, enabled by the Empire. These questions become the focus of Part III of this dissertation.

⁴⁶ The use of the term of subaltern, transformed in this new digital context, is used with full recognition of the history of the cultural studies conceptualisation: the disempowered without consciousness. This concept is more fully explored in Chapter Eight, ‘The Digital Subaltern’.

Chapter 3

Networks and Digitisation

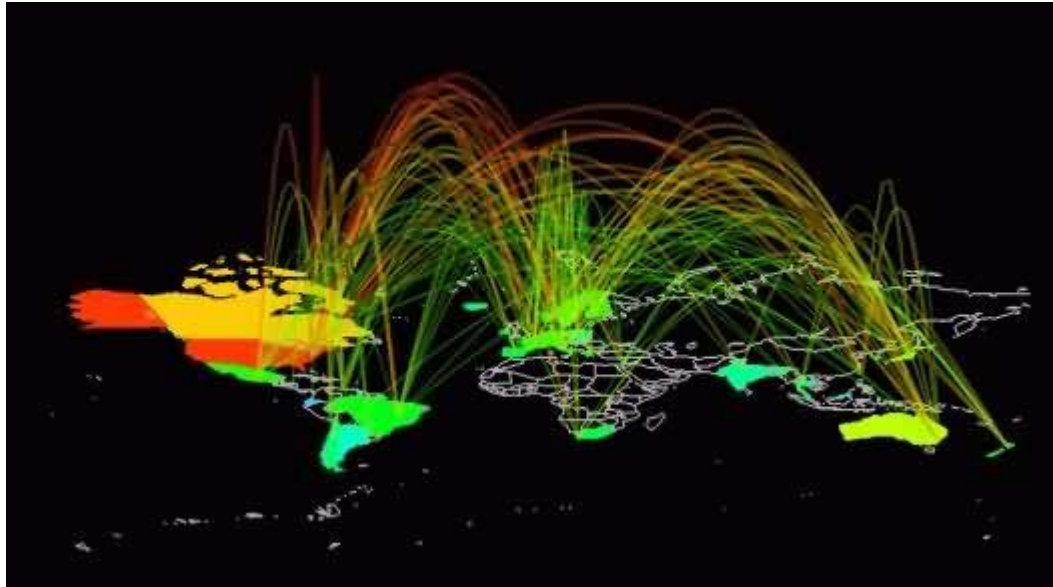


Figure 25

Missile Tracks Across the Net

<http://www.cybergeography.org/atlas/geographic.html>

[accessed 22.5.2005]

I like to think (and
the sooner the better!)
of a cybernetic meadow
where mammals and computers
live together in mutually
programming harmony
like pure water
touching clear sky.
I like to think
(right now, please!)
of a cybernetic forest
filled with pines and electronics
where deer stroll peacefully

past computers
as if they were flowers
with spinning blossoms.
I like to think
(it has to be!)
of a cybernetic ecology
where we are free of our labors
and joined back to nature,
returned to our mammal
brothers and sisters,
and all watched over
by machines of loving grace.

All Watched Over by Machines of Loving Grace
Richard Brautigan 1967

Introduction

At a technical level, the Internet can be narrowly defined as the transmission of data using two codes, the Transmission Control Protocol and Internet Protocol or TCP/IP. Transmission Control Protocol is responsible for breaking data up into individual packets for transmission through the network and then reassembling those packets into their original form after transmission. Internet Protocol is a 'lower layer' of code that ensures that each packet is addressed properly for transmission so that it arrives at the correct location within the network. The system operates using dynamic routing so that if one section of the network is unavailable or removed, the packets find an alternate route. While these protocols represent the Internet at its most fundamental technical level, an understanding of the Invisible Empire they enable requires a more expansive interpretation. This analysis can be best illustrated by breaking down the understanding of the Internet into four separate components used to investigate access, hardware, software, wetware and cultware.

This chapter sets the stage for the analysis that follows by interrogating the characteristics of the digital environment that these four 'wares create. This investigation illustrates some of the variables, histories and environments that have lead to the rapid growth of the network over the past decade and what factors might lead to the tapering of this growth. The focus then shifts to the interface between the Invisible Empire and the market place and how the transformation to the digital environment effects the construction of capitalism and the structure of the digital economy. The analysis then turns to how the individual manifests in this digital environment, what is the digital self, how is it constructed and what does it look like?

The nature of this construction will inform the discussion in Part II of this dissertation which examines the politics of the Invisible Empire, and then Part III that focuses on the consequences of the interface between the Invisible Empire and the off screen world.

The Internet has no central control, no identifiable or accountable manufacturer or broadcast mechanism. This tendency makes the Internet quite different to other, more traditional, channels of communication. As Paul Virilio notes:

Cyberspace is a new form of perspective. It does not coincide with the audio-visual perspective which we already know. It is a fully new perspective, free of any previous reference: it is a *tactile perspective*. To see at a distance, to hear at a distance: that was the essence of the audio-visual perspective of old. But to reach at a distance, to feel at a distance, that amounts to shifting the perspective towards a domain it did not yet encompass: that of contact, of contact-at-a-distance: tele-contact.¹

Networks are by their nature difficult to find the centre of, the Internet is no exception to this,² and the fragmentation of the concepts of core and periphery has far reaching implications. The nature of the Internet means that it is in many ways more open in terms of access than many other forms of more controlled media. On the other hand, the lack of an established system for organising and resolving disputes might lead to technological and policy incompatibilities that limit the network's utility. With no agency exercising responsibility or sovereignty over the

¹ P. Virilio, 'Speed and Information: Cyberspace Alarm', *Le Monde Diplomatique*. August 1995. Translated by P. Riemens, University of Amsterdam.

<http://www.humanities.uci.edu/mposter/syllabi/readings/alarm.html> [accessed 7.6.2005].

² While this is true to a certain extent, it is not as true as the popular belief. There is currently one main domain name server that acts as a master directory for the Internet. Each twelve hours it generates a master file that is sent out to twelve mirror servers telling them what Internet domains exist and where to find them. The system is currently designed so that at least eight of these thirteen servers must fail before an ordinary Internet user would notice any effect. On October 21, 2002 a distributed denial of service (DDOS) attack through the Internet managed to put three or four of these servers out of action. D. McGuire & B. Krebs, 'Attack On Internet Called Largest Ever', *The Washington Post*. 22nd October 2002.

Invisible Empire, its ability to exercise responsibility for its digital citizens is limited. The Internet operates by providing the opportunity for a diverse array of information communications opportunities at a relatively low price, rather than just enabling the broadcasting of a single expensive signal to a passive audience, as traditional forms of mass communication tended to. The Internet allows for the possibility of many-to-many communications.

Networks

The Internet is a telecommunications network. As a network, both within Australia and across the world, each individual member that joins that network makes the Internet more valuable. Thus when a new connection and user is added,³ not only does it provide that connection and user access to the rest of the network, but it also provides access from the rest of the network to that connection and user. This connection may add a whole new base of data to the network, such as when a library puts its catalogue online, or it may just be one more point with the potential to access what content is already there and thus increasing the previous reach of the network by one, such as when an individual signs up for an Internet connection on their home computer. This effect is known within traditional economics as externalities.⁴

³ The distinction between 'user' and 'connection' is quite a bit more complex than it might at first seem. The two concepts can be seen to be concurrent, since to have one without the other, especially when looking at the value of a network, is of little use. They also conflate. At what point is something a connection, and something else a user. While this is pretty easy to determine for certain aspects, such as a modem, or computer literate university student, there is a large grey area between, such as to which of these two concepts would an email address be ascribed. To have one without the other is however of little value, how can you be a user without a connection, and what use or value is a connection if there is no user?

⁴ Telecommunications Pricing Theory and Practice P.1 and Telecommunications Demand in Theory and Practice p. 231. As cited in G. Goggin, 'Voice Telephony and Beyond' in B. Langtry (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998, p. 54.

Robert Metcalf is known for having devised the initial version of the Ethernet network system that became one of the major sources of network protocols when linking individual computers across a network. He devised Metcalf's law as a way of describing the growth in potential value that comes from linking computers in a network.⁵ Connect any number, 'n' of machines – whether computers, phones or even cars – and you get 'n' squared potential in value.⁶ That is to say, there is an exponential growth in power that comes from each additional node on a network.⁷ Following this law, each additional connection to the Internet, while it does not significantly add to the cost of the network, will greatly increase the total value of the network. This increase can be graphed like this:

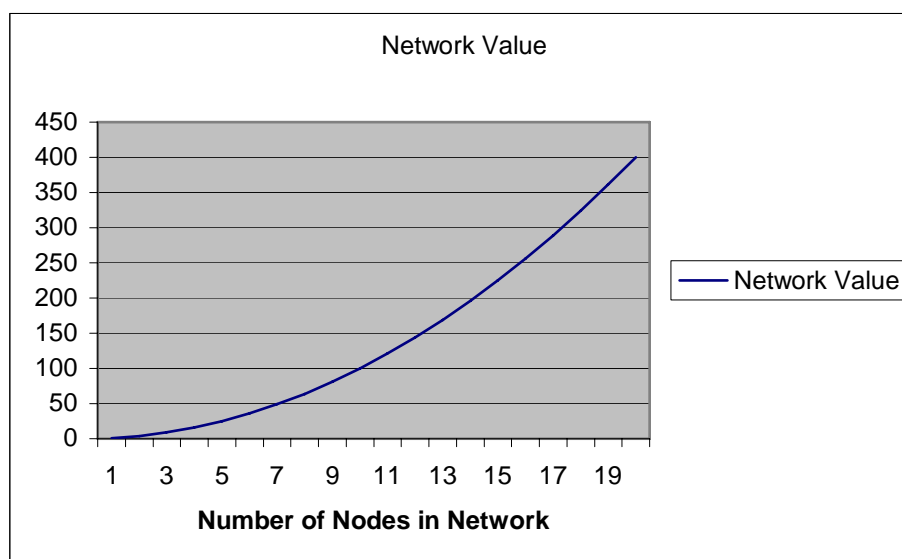


Figure 26
Growth in Network Value

⁵ Metcalf did not actually dub this theory a law when he first promoted it in 1980, but that it was later 'elevated' to that status by the author George Gilder. B. Metcalfe, 'There Oughta Be a Law', *New York Times*. 15th July 1996. <http://www.nytimes.com/library/cyber/week/0715laws.html> [accessed 17.5.2005].

⁶ G. Gilder, 'Metcalf's Law and Legacy', *Forbes ASA*. 13th September 1993. <http://www.seas.upenn.edu/~gajl/metgg.html> [accessed 26.6.2005].

⁷ The actual equation is $N*(N-1)$ where N is the number of connections. The -1 represents the fact that you already have access to yourself, or your node in the network. D. Weinberger, *Small Pieces Loosely Joined: A Unified Theory of the Web*. Cambridge MA: Perseus Books Group, 2003.

Metcalf's law applies to all networks. A useful example is the road system and cars.⁸ Utilising this analogy will, to a point, help explain the potential limitations on the exponential growth promised by Metcalf's law. In a road network, the value of that network will be greatly increased by each additional car that is able to use it. At early stages this growth may be exponential. Over time as traffic congestion builds up the added utility of each car will begin to decline. While it might be beneficial for the new car owner able to properly access the network for the first time the additional traffic will reduce the utility of the road network to other road users, the effect of cumulative pollution and possible negative impacts on society may also come into play. Thus after a point, each additional user will have a diminishing marginal return to the growth of the network. It is possible to conceive that there will be a point where an additional user might in fact reduce the total value of the network as they spread the network's resources to the point where it was more valuable without that additional user as a whole. However the individual user will probably still be better off than before, at least until the point where the network's value is reduced to zero as it comes to a halt under the weight (or perhaps wait) of users, a bit like a large city road system during rush hour. This drop off in growth can be illustrated by continuing the previous graph.

⁸ G. Gilder, *Telecosm: How Infinite Bandwidth Will Revolutionize Our World*. New York: Free Press, 2000.

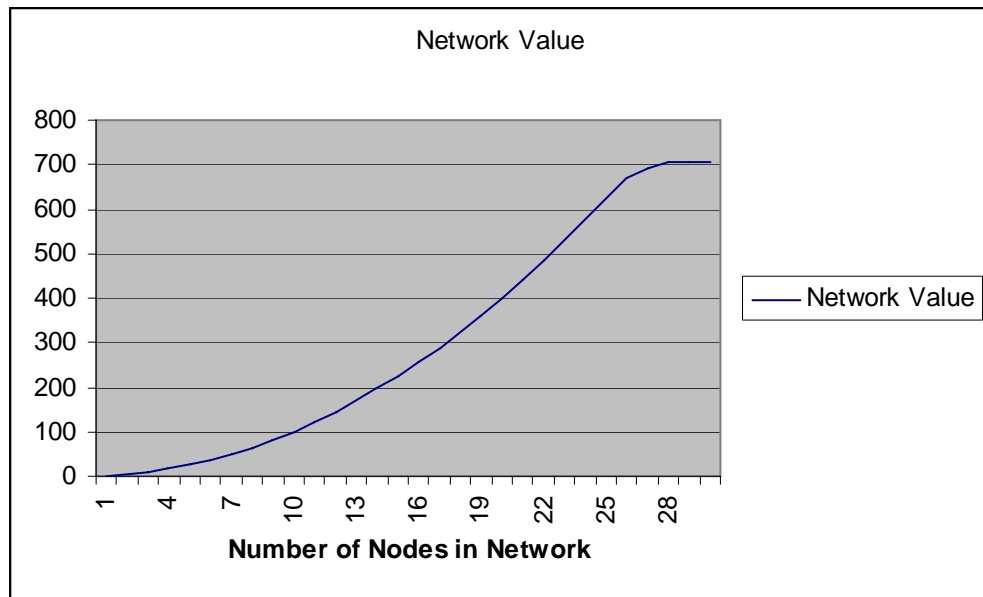


Figure 27
Effects of Limited Network Utility

The critical issue to be addressed here is the concept of network utility. While Metcalf's Law can determine the potential value of a network, the network utility will determine how much of that potential can be achieved. The area at which this diminishing marginal return starts to occur and their impact can be 'put off' to occur at a greater number of users by increasing the level of network utility. Thus continuing the road network example, the streets could be widened, better traffic controls installed, drivers better trained and cars better built. Each of these measures increases the network's utility, and thus allow for more users before this slowed rate of growth of value (and later decline of value) with each additional user would start to apply.

Network utility for the Internet can be broken down into the separate components of hardware, software, wetware and cultware. Network utility and the gateway to access are intimately linked. The size of the gateway is a metaphor, and social indicator, for

the level of network utility available through that point of access. While questions of access focus on the individual passing through the gateway to empire, the network utility describes the condition of the Invisible Empire so accessed. Like access there is an overlap between all four components, the characteristics of any one component can act to inhibit or enhance the other three. In relation to the hardware, network utility might be seen initially as Internet protocols were first implemented. Gordon E. Moore, who would later be one of the co-founders of Intel Corporation, articulated what would become known as Moore's law in *Electronics* magazine in 1965:

The complexity for minimum component costs has increased at a rate of roughly a factor of two per year ... Certainly over the short term this rate can be expected to continue, if not to increase. Over the longer term, the rate of increase is a bit more uncertain, although there is no reason to believe it will not remain nearly constant for at least 10 years. That means by 1975, the number of components per integrated circuit for minimum cost will be 65,000. I believe that such a large circuit can be built on a single wafer.⁹

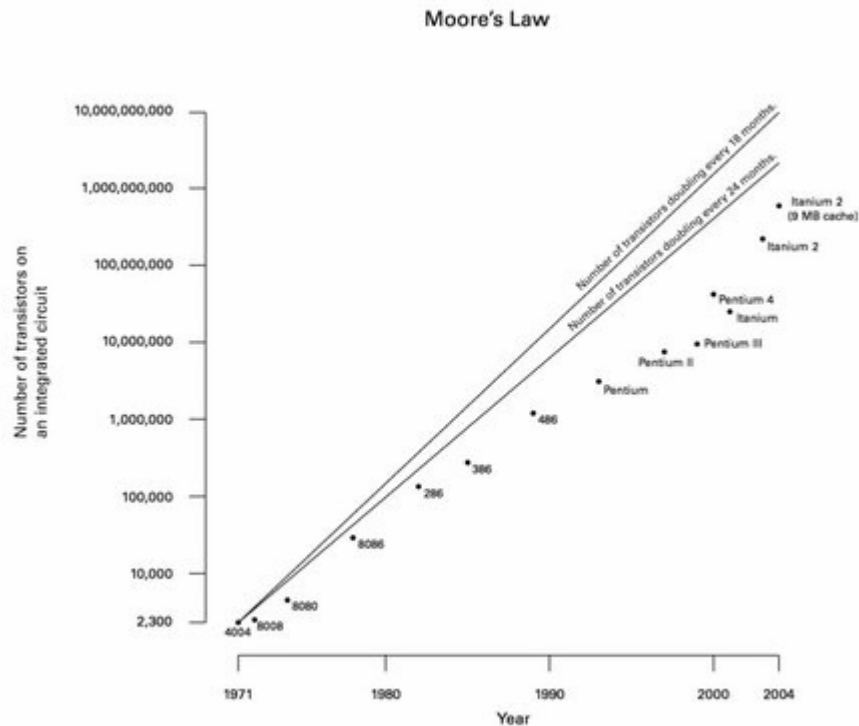
This idea that the speed of processors would double every year, while not particularly accurate,¹⁰ Moore himself revised it to once every two years in 1975,¹¹ has acted as a driver for the industry as integrated chip producers seek to keep up with the perceived requirements of Moore's law so as not to be overtaken by their rivals.

⁹ G. Moore, *Electronics*. 19th April 1965, volume 38, number 8.

www.cs.ucsb.edu/~arch/cs254/papers/moorepaper.pdf [accessed 23.4.2005].

¹⁰ I. Tuomi, 'The Lives and Death of Moore's Law', *First Monday*. November 2002, volume 7, number 11. http://firstmonday.org/issues/issue7_11/tuomi/index.html [accessed 28.4.2005].

¹¹ 'Moore's Law at 40: Happy Birthday', *The Economist*. 23rd March 2005. http://economist.com/displaystory.cfm?story_id=3798505 [accessed 29.4.2005].



Growth of transistor counts for Intel processors (dots) and Moore's Law (upper line=18 months; lower line=24 months).

Figure 28
Moore's Law
http://en.wikipedia.org/wiki/Moore%27s_Law
 [accessed 28.4.2005]

While Moore's law referred specifically to processing power, it has also been coopted to explain the corresponding rapid growth in computer memory and other aspects of computing hardware. This has resulted in an environment of rapid growth both in the volume of data that can be stored and transmitted and the speed with which it can be translated and analysed. The concept of computing power as a commodity is thus one with a built in used by date, by which any particular purchase will be 'out of date' and too slow and thus in need of replacing with a newer version.¹² Similarly as the power to interpret and store bits of information has

¹² J. Twist, 'Law that has driven digital life', *BBC News, World Edition*. 18th April 2005. <http://news.bbc.co.uk/2/hi/science/nature/4449711.stm> [accessed 29.4.2005].

improved, so has the ability to transport that data. Modems¹³ are used to carry a digital signal across an analogue medium, normally a traditional copper telephone line.



Figure 29
1989 Maestro Modem

This is my first modem from the early 1990s. It had a baud rate of 2400,¹⁴ or 600 bits a second and was very slow for its time. At this speed the Internet is largely limited to ASCII¹⁵ based text.

The first commercial modem was manufactured in 1962 and could transfer data at 300 bits¹⁶ per second, the current v90 standard, potentially allowing for data transfer rates of 56k or 56 000 bits per second, was first developed in 1996.¹⁷ These devices remain the method by which the majority of people access the Internet both in Australia and across the world, and their speed, like processors, up until the current standard has regularly doubled. More recently, the roll out of broadband access has enabled transmission speeds over xDSL services and cable modems to increase tenfold. In Australia the first ADSL services were available through Telstra in 2000, and currently provide access to 32% of households.¹⁸

13 Modems are named after their function of modulator – demodulator of electronic signals.

14 ‘Baud rate’ is named after Emile Baudot, who invented the Baudot Code for telegraphy in 1874.

15 American Standard Code for Information Interchange. Each letter or character is conveyed by 7 ‘bits’ of information.

16 Each bit represents a single piece of data, a zero or one of binary information.

17 V90 Modem Standard.Com <http://www.v90.com/index32.html> [accessed 9.7.2005].

18 P. McIntyre, ‘TV loses its edge as broadband access multiplies’, *The Sydney Morning Herald*. 6th May 2005. <http://businessnetwork.smh.com.au/articles/2005/05/05/2203.html> [accessed 9.7.2005].



Figure 30
2004 Billion ADSL Router

This is my current ADSL modem it transfers 512 000 bits per second and at this rate can access streaming video images.

The better hardware is able to transport, store and analyse digital information the more complex the structure that can be created by allocation of 0s and 1s, thus the potential size and complexity of programs and information that the hardware can accommodate increases. This has lead to the mode of content that can be accessed from the web expanding from the ASCII text that my first modem made accessible, to web pages with still picture and sound files, and limited moving graphics, through to the video that is now available through my ADSL service. This process is limited to the speed of the weakest hardware component in the transport and interpretation of the digital signal, an ADSL modem still needs both a telephone line capable of supporting its signal and to be connecting computers capable of both encoding and interpreting complex content for it to be assessable.

The ability to rapidly transport and decode the stream of 0s and 1s that enable the digital world, as well as allowing for more complex structures to be supported in a computer mediated environment is also driving the process of convergence. Formerly analogue mediums from pictures, to voice telephony, to sound and video,

can now be easily converted to a digital format, with all the advantages of the ability to transport and easily copy that this mode of information embraces. This digitisation then leads to a breakdown in our former understanding of how these different media are produced and consumed. The same decoding device can be used to access and store any type of digital content limited only by processing power and memory.

Voice over Internet protocol (VoIP) allows the transmission of a telephone conversation as a digital signal over the Internet. Until recently, the bandwidth required for this transmission had been outside of the reach of most potential users, however the rollout of residential broadband access has now brought this within reach. However while the signal will still travel along a phone line, it does so in this format as part of a continuous Internet connection, with nothing to differentiate it from any other digital information. As such it bypasses traditional pricing mechanisms for this service, both domestically and internationally. In March 2005, Telstra began to trial the commercial delivery of this service to its Internet customers.¹⁹ The delivery of both telephony and the Internet have up until now been seen as two different types of service, while Telstra has delivered both this convergence has meant that Internet services are now potentially providing both.²⁰ A more obvious example is perhaps the recent roll out of technology to provide Internet

¹⁹ 'Telstra VoIP trial kicks off', *The Age*. 3rd March 2005.

<http://theage.com.au/news/Breaking/Telstra-VoIP-trial-kicks-off/2005/03/03/1109700589479.html> [accessed 7.6.2005].

²⁰ S. Bartholomeusz, 'Trujillo's vision might put all Telstra's eggs in IP basket', *The Age*. 14th June, 2005. <http://www.theage.com.au/news/Stephen-Bartholomeusz/Trujillos-vision-might-put-all-Telstras-eggs-in-IP-basket/2005/06/13/1118645745836.html> [accessed 20.6.2005].

Protocol Television (IPTV).²¹ Telecommunications service providers and media companies are inexorably being drawn into each other's businesses.

While it can be seen that the rapid development of hardware technology is a driving force behind the Internet's level of network utility, the software that is enabled by hardware will also play a role in determining these limits. The original aim of the ARPANET, the precursor to the modern Internet was designed to facilitate computers at different research institutions to communicate with each other despite otherwise having incompatible operating systems. In 1971 Ray Tomlinson first introduced the '@' symbol into email addresses in his early email programs in this network. By 1973, three quarters of all traffic on that network consisted of emails, communication between people, rather than computers, was the driving application.²² Email continues to be the most popular online activity.²³ Another 'killer application' that drove the growth of the Internet network came in 1991 when Tim Berners-Lee developed the World Wide Web.

²¹ D. Kitney & M. Jones, 'Telstra's plan for internet TV revolution', *The Australian Financial Review*, 30th May 2005, p. 1.

²² T. Jordan, *Cyberpower: The Culture and Politics of Cyberspace and the Internet*. London: Routledge, 1999.

²³ M. Madden & L. Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project 22nd February 2003.
<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

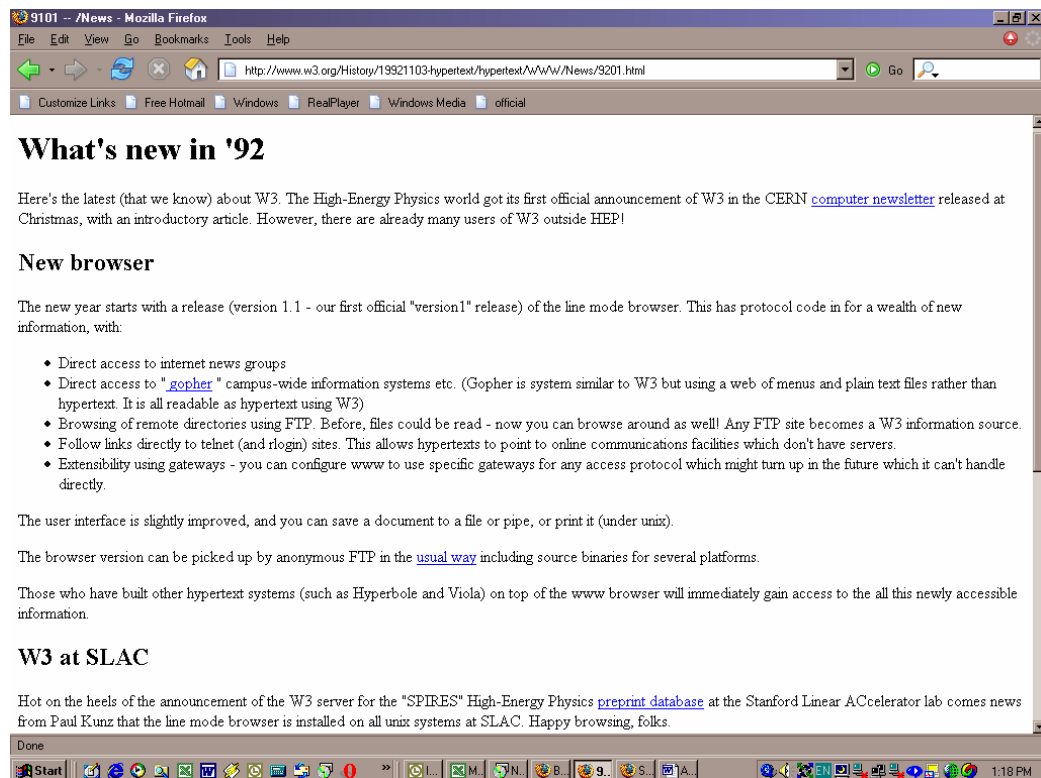


Figure 31
First Page of the World Wide Web, 6th August 1991
<http://www.w3.org/History/19921103-hypertext/hypertext/WWW/News/9201.html>
 [accessed 24.6.2005]

In both these examples, the potential enabled by the software drove growth in the network and increased the network utility. The Web in particular made the Internet more accessible to individuals without training in computer science, as Berners-Lee noted prior to the World Wide Web the Internet was ‘too much of a hassle for a non computer expert’.²⁴ Similarly, the development of web based search engines such as Yahoo and Google, allowed individuals to access more of the information on the Web more quickly, with less expert knowledge. In these examples software helped reduce the level of wetware that was required to utilise a greater proportion of the network, and through that increase its utility value for an individual user. Wetware however is still a fundamental element of network utility. The greater an individual’s

²⁴ T. Berners-Lee, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web*. San Francisco: HarperSanFrancisco, 1999, p. 20.

knowledge of the construction and workings of the Internet, the higher the potential value it represents. The level of education and technical expertise of a user will also play a role in determining the network utility of the Internet, both for the individual user, and as a measure of the total value of the network for other users. The environment the Internet manifests in will also influence its utility value. This is in part a function of determining the number of users or nodes on the whole network, but also the goods and services that are available through the network. Cultware determines the circumstances of the interface between the on screen Invisible Empire, and the off screen analogue world that the individual user inhabits. Cultware will influence the impact and availability of the other three elements of network utility.

The growth in processing power and the development of the World Wide Web have both served to drive the levels of network Utility derived from hardware and software. This can be seen reflected in the rapid growth of the Internet, particularly in the past decade since the development and adoption of the World Wide Web. However as outlined in Chapter Two 'Internet Access' both network utility and access are limited by the weakest factor in the matrix of access. The growth in the penetration of the network has begun to taper off in mature markets, particularly the United States as illustrated by the Pew Internet and American Life project research

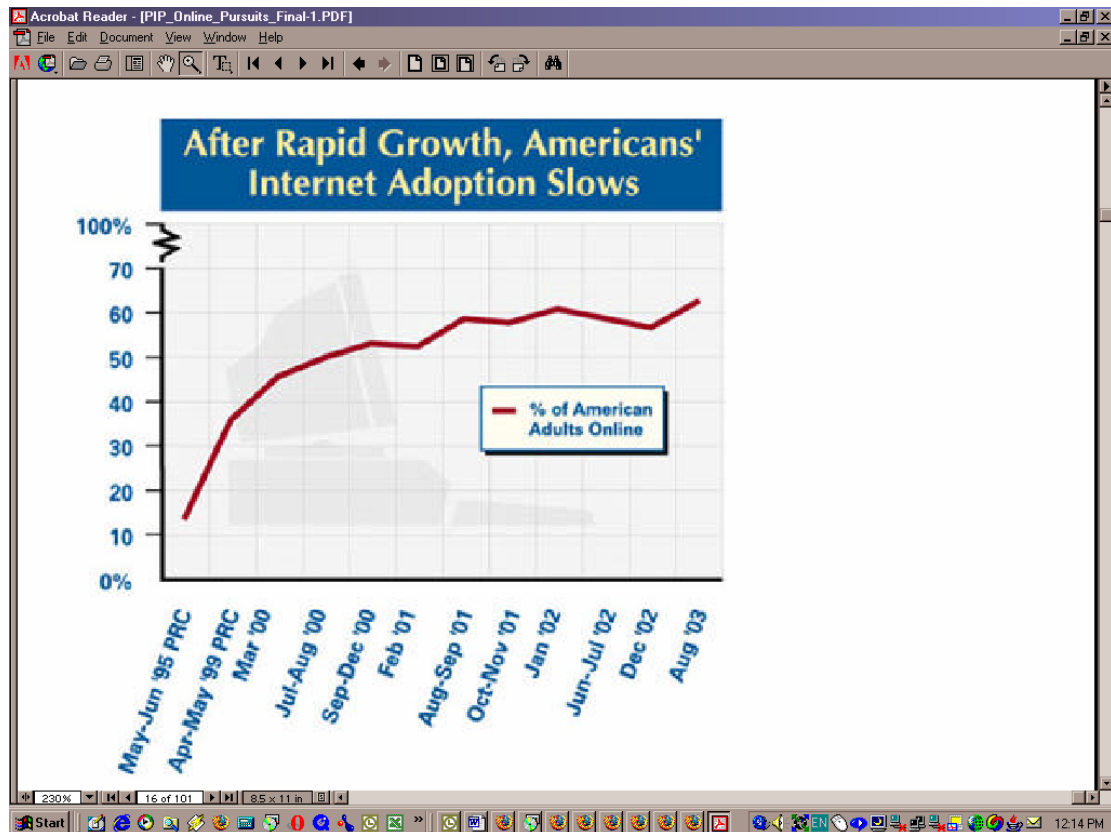


Figure 32
Slowing of Internet Growth in the United States

<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463>

[accessed 29.4.2004]

This slow in growth now needs to be understood in terms of the limits placed on the network, and through those limitations the point at which the event horizon of access is reached, by cultureware and wetware, by the limits of cultural capital and literacy that are required for access. The Internet can be seen to have now reached the majority of the population who meet these requirements and has hit the border of those who do not.

These factors will limit both access to the network and the utility of the network once access has been achieved. The value of the Internet, related to all four elements of

this network utility, needs to be understood in terms of what is actually available through the medium. The utility value of connection to the Internet for any individual will be determined by what type of network value can be extracted through that connection in terms of both its physical characteristics and also an individual's capacity to make use of that connection. The total value of the network and all the connected users is of little consequence if a person can only access a relatively small area of the Internet.²⁵ The level of information, goods and services that can potentially be accessed through the Internet will determine what type of connection an individual will need to access the Internet at its fullest utility, and this can thus be seen as an important determinant for the ability to extract maximum value from the whole network. The delivery of these goods and services is also limited by a user's geographic location and this will impact ability to access the full network value, for that individual.

Utilisation of the network is also limited and enhanced through a user's understanding of the cultware, the context in which the Invisible Empire interfaces with the analogue world. There are many artefacts and literacies that can influence the value of this interface. A colleague of mine managed to keep themselves employed for six months by being a full time Internet Gambler. Far from a some digital version of the Maverick brothers, they exploited the fact that most online casinos provide new players with a starting 'stake' in order to encourage them to join up. Once they have the credit card details necessary to create an account, they provide their client with some money already in their account. My colleague would

²⁵ I have four computers networked within my apartment. Only two people live there. The ability to make effective use of the fourth connection was limited to a point where it made very little impact on the total value of the network.

use this money and cash out any winnings, taking advantage of a wallet full of credit cards, and the large volume of different online venues offering this similar service to make up for the fact that he did not always win anything with this initial money at any one casino. Eventually having reached the end of the online casino strip with each of his credit cards²⁶ he was forced to return to the more conventional workforce. In this case he was able to exploit his high level of literacy in this particular area to generate a reasonable income, albeit a non-sustainable one.



Figure 33

Maverick

<http://www.tvtome.com/tvtome/servlet/ShowMainServlet/showid-1020/>

[accessed 18.1.2005]

In this case, the importance of credit cards in enabling online transactions is confirmed. While the hardware of the credit card itself is little more than a piece of plastic and the software it contains is little more than a person's name and a set of numbers, the cultware required to enable its role in financial transactions is where the majority of its utility is stored. Without the cultware environment provided by access to a credit card, areas of the network move outside of access to a particular gateway, and the network utility that can be utilised is reduced.

²⁶ For the casinos each credit card represents a different virtual gambler.

Changing Conditions

There are different measures of Internet growth that have been used over time. The measures used reflect the changing nature of the way that the Internet is thought of and understood. While some commentators have measured the actual flow of data,²⁷ most of these measures of growth have focused on the interface between the Internet and the people who use it. One of the original measures of the growth and size of the Internet focused on the number of host computers connected. As the Internet moved out of the exclusive realm of academia and government and into more general use, measures of the Internet moved to focus on the number of people who had used, or had connection to the Internet. Then, with an increased focus on commercialisation of the Internet much attention focused on the growing amount of economic activity online, both between businesses and between businesses and consumers. These changes over time in measures can be illustrated in the following statements:

The number of host computers on the Internet has been increasing tenfold every three or four years since 1982.²⁸

Within Australia, Internet access was at 1.6 million households or 23% of all households as of August 1999, and expected to be at one third of all households by the end of 2000.²⁹

²⁷ Mike O'Dell estimated the number of 'bytes in flight' or information in transit through cables at any point as being between five and ten gigabytes. D. Weinberger, *Small Pieces Loosely Joined: A Unified Theory of the Web*. Cambridge USA: Perseus Publishing, 2002, p. 19. <http://www.smallpieces.com/content/chapter1.html> [accessed 13.7.2004].

²⁸ A. Colecchia, & A. Wyckoff, *The Economic and Social Impact of Electronic Commerce*. Paris: Organisation for Economic Co-operation and Development 1999, p. 9.

²⁹ 'One Third of Australia Online by Xmas 2000', Press release, Senator The Hon Ian Campbell 24th December 1999. http://www.dcita.gov.au/nsapi-graphics/?Mival=dca_dispdoc&ID=4742 [accessed 21.6.2004]. As it turns out by November 2000 37% of Australian Households had access to the Internet, however there were significant regional variations. *The Current State of Play May 2001*. National Office of the Information Economy. <http://www.noie.gov.au/projects/framework/progress/ie%5Fstats/csop%5Fjune2001/readiness/readiness1.htm> [accessed 31.3.2003].

Internet-based electronic commerce was valued worldwide at AU\$55-80 billion in 1998, and is expected to rise to between AU\$1.4 and AU\$3.2 trillion by 2003.³⁰

All these measures are valid. They serve to illustrate the change from ‘how many computers?’ to ‘how many people?’ to ‘how much money?’ Questions of ‘why’ and modes of exclusion that are masked by languages of progress, development and growth are more difficult to reveal.

This growth in the size of the network tracks growth in both the total value of the network and the amount of that value that can be easily accessed by an individual. The development of the World Wide Web, by reducing the level of wetware required to access the Internet made it accessible to a greater number of users. This in turn increased the value of the total network, attracting still more users. While this was occurring the continued rapid development of hardware, and the capacity to support more complex software further increased both the total network value and the ability of users to access that value and correspondingly attracted more users. However the rapid growth in the proportion of the population online is starting to taper off.³¹ Up until this point the network has been able to attract users who have the prerequisite wetware and cultware to enable them to access sufficient network utility, a population that grew as a result of the lower literacy requirement allowed for by the development of the World Wide Web. This drop in the growth of Internet penetration indicates the end of expansion throughout this population. This raises questions

30 Ernst & Young and Corrs Chambers Westgarth, *Removing Barriers: Creating the Environment of Trust, Confidence and Acceptance of Online Services: Draft Report for Comment*. Perth: Department of Commerce and Trade. 1999, p. 5.

31 M. Madden & L Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do* Pew Internet & American Life Project. 22nd February 2003.
<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

about the consequences for those left outside the gates of the Invisible Empire. New measures are needed. The focus must now turn from the rapid growth of those with access, to the conditions of those that are excluded and the consequence of that exclusion.

While it is possible to talk of the network's total value, for each node, or each user, there will be different constraints on the network utility, a greater or lesser value that can be potentially obtained from the network. The Invisible Empire needs to be understood in the context of all these variables. It is not just the protocols and communicative capacity of the Internet as a network, but the information, goods and services that are available through the Internet that make up this Digital Empire. The environment in which it manifests, the level of cultware at a given manifestation of Empire determines the value of the network as much as the bandwidth available. Crucially there will be a point at which the network utility is reduced to zero by a failure in any one of the four aspects of this value, an event horizon, or point at which no network utility can be accessed, exists potentially in hardware, software, wetware and cultware.

The Invisible Empire does not exist within an isolated space on the screen. It interfaces with the analogue world through a number of different mechanisms. While the network was originally conceived a space to support academic and military research, the growth of the Internet outside this community and into wider society led to the adoption of the medium as a space for commercial activity. However the traditional exchange of commodities through commerce is transformed in the digital environment. The consequences of this transformation, like the value and growth of

the network, form the foundations of an investigation into the nature of the Invisible Empire.

Welcome to the Digital Economy



Figure 34
The Marketplace at Pontoise by Ludovic Piette, (1826-77)
<http://www.arthistory.cc/auth/piette/>
[accessed 24.6.2005]

The feudal marketplace was an area set aside for the exchange of goods and produce. Buyers and sellers could meet at a specified place, often on specified days, to come together and engage in commerce. Over time the terminology has come to represent a more abstracted principle of the exchange of goods and services. As capitalism has colonised the Internet, the notion of the marketplace has increasingly become an essential part of the discussion. This has paralleled the rise of electronic commerce as a focus of Internet related analysis and the broader tendency to view the world in primarily economic terms. While the traditional marketplace was the common area set aside for the exchange of produce in small communities, it has come to represent

the ‘space’ in which goods and services are exchanged in the economy. While the Internet can act in a way that is analogous to traditional markets and to some extent merely tracks the increasing abstraction of these institutions from their village square roots through to the complex and abstracted modern electronically mediated financial markets, increasingly removed from any actual goods or services, the process of digitisation transforms the construction of commodities. The way that economic resources are generated and stored in a digital environment is a significant departure from the analogue world.



Figure 35

ASX

<http://abc.net.au/news/newsitems/200501/s1285061.htm>

[accessed 18.5.2005]

The digital economy is distinct from its counterpart off screen, yet there are similarities and links between the digital and analogue environments that form an essential part of any analysis. Jean Baudrillard, in *Simulacra and Simulations*, stated:

No more mirror of being and appearances, of the real and its concept; no more imaginary coextensivity: rather, genetic miniaturization is the dimension of simulation. The real is produced from miniaturized units, from matrices, memory banks and command models – and with these it can be reproduced an indefinite number of times. It no longer has to be rational, since it is no longer measured against some ideal or negative instance. It is nothing more than operational. In fact, since it is no longer enveloped by an imaginary, it is no

longer real at all. It is a hyperreal: the product of an irradiating synthesis of combinatory models in a hyperspace without atmosphere.³²

While Baudrillard was concerned with the 'real' being removed from the real world and replaced with the Simulacra that did not represent (even) images of the real, in the digital political economy the concern is more with how notions of the 'real' impact on the digital world consisting entirely of simulations and simulacra.³³ The digital economy in the context of this discussion encases the goods and services produced and consumed through the Internet. As such, the focus is on information, what it consists of, who owns it, and how it is manipulated. The Internet produces both goods and services, and has property, and in so far as that is true, it can be seen to be analogous to the off screen economy. Similarly much of the struggle between different factions of the digital world, is a struggle over how the goods, service and property, the wealth of the economy, are distributed, who controls the information and how the digital economy is constructed.

This discussion focuses on the role of goods and services and the nature of the software or more accurately information, of which they all consist, as these are what are produced 'in cyberspace'. The features of digital property are discussed in the following chapter on digital sovereignty. However at the core of the discussion is how wealth is distributed and maintained throughout the digital economy. Marx observed in *Capital*:

³² M. Poster (ed), *Jean Baudrillard, Selected Writings*. Stanford: Stanford University Press, 1988, pp.166-184. accessed at http://www.stanford.edu/dept/HPS/Baudrillard/Baudrillard_Simulacra.html [4.9.2003].

³³ The representation, as a middling translator between the real and the simulacra is no longer present in the digital environment.

A commodity appears, at first sight, a very trivial thing, and easily understood. Its analysis shows that it is, in reality, a very queer thing, abounding in metaphysical subtleties and theological niceties.³⁴

In the context of the digital economy, these metaphysical subtleties and theological niceties are transformed and amplified from their analogue contemporaries in Marx's analysis. When goods are produced for the Internet, what is actually occurring is that new pieces of software, and/or content are being produced. In this case, software is distinguished from content in that it is designed to manipulate content or hardware in some way, as opposed to content, which is generated primarily as information. This makes them quite different from the Marxist conceptualisation of goods or commodities, ideas are different to factories; they can be easily copied, at no cost. In addition many of the secondary costs of production do not occur online, there is no pollution, the workforce does not need to be housed and fed, these costs will manifest off screen. The costs to the Internet associated with the production of goods are the storage to host them, the bandwidth to transport them and the maintenance of the network. When you make a movie the sets, staff and actors are all off screen, yet once it is digitised and online it becomes a new object of value on the Internet. A similar situation emerges with services.

While the construction of software is the most obvious transformation within the digital economy, this cannot be taken out of the context of hardware, wetware and cultware. It is a common mistake to view wetware as being analogous to software, viewing both as operating systems. However software is quite separate in its characteristics from wetware, which is in turn more akin to hardware. Software, once

³⁴ K. Marx, *Capital: A Critical Analysis of Capitalist Production Volume 1*, 4th Edition, USA: International Publishers Co, 1947, p. 41. <http://www.marxists.org/archive/marx/works/1867-c1/ch01.htm> [accessed 14.6.2005].

devised, can be replicated an infinite number of times at effectively no cost. By contrast wetware takes a long time to develop and can only be replicated by following the same process of production from scratch, similarly hardware, while rapidly growing in capacity needs to be manufactured for each application it is required to fill, both share a constant cost of production.³⁵ It takes wetware to produce software, but software can also facilitate wetware development. Cultware is the social and technological environment, the access to other wetware at the end of any network of hardware and software. A telephone network is only as useful as the sum of the others that can be contacted on it. Cultware encompasses the literacy and adoption of technology by a particular population. Cultware is the context in which the other three elements come together.

A useful analogy is the work of a carpenter making a house. The carpenter's tools and equipment represent the hardware, the software is represented in the building plans and the wetware is the knowledge and experience built up in the brain of the carpenter. While the plans could be photocopied and used by many carpenters at the same time, the individual carpenter can only do one job at once, whether it be building a house, teaching an apprentice, or working on new designs. The apprentice is taught both by the wetware of the carpenter and through looking at existing designs and buildings, or software. The context of this construction, where the house is located, the availability of resources, the social world in which the carpenter and apprentice exist, are all functions of cultware.

³⁵ P. LaBarre, 'Not your Father's Economist', *Industry Week*. 2nd May, 1996.

The digitised environment represented by the Internet is a vast store of potential social and cultural capital manifest in the wetware of other users and the software or content that is available through the network. This grouping of resources and the synergy within that grouping of different resources is made available as a function of cultware. To access this capital requires a variety of literacies, an understanding the technology, the hardware and software of the Internet, also literacy in interaction with others through the medium and finally an understanding of how the environment operates and where the resources can be found. All literacies are wetware. They require time and capital to be invested in each individual to develop.

The constancy of production of both hardware and wetware, and the ability of software, including in this context pretty much any form of digitised content, to be copied, an infinite number of times at relatively low cost, but only once the initial effort to produce it has been undertaken, were two of the major features of this type of economy. In the context of the digital political economy, there are a number of additional features that set this digitised area apart from the more traditional ideas of economic production, ownership and wealth off screen.

When copying digital information, there is no deprivation to the original owner. This is different to stealing a car, in which case while the thief now has access to it, this access is at the expense and exclusion of the previous owner. Additionally, whenever a viewing of digitised information takes place, a copy is made of it. Off screen, a person can attend an art gallery and enjoy the artwork while they leave with the knowledge of having seen the artwork, they do not leave with a copy. When someone takes a virtual tour through the same gallery on their computer, they are

necessarily downloading copies of those images, at very least on to their screen, but most likely also on to some static memory in the device that they are using to take the virtual tour. Similarly, the difference between Internet radio stations and their off screen counterparts is that a copy of the music played by an Internet based radio station is sent to the listener's computer and then interpreted and played, rather than a radio receiver providing access to a transitory radio signal, which while it could be copied, does not have to be in order to listen. In the digital world online the very act of observation creates a new copy of what is observed. Without the Internet, some listeners would never hear the Australian national youth station Triple J's top 100 songs, voted by their listeners, on Australia day each year. The extra distribution of a radio signal over the Internet potentially adds value to any advertising. However advertising revenue goes to the station, rather than to the copyright holders of the songs, who require a measurable, geographic area, ideally within a single political jurisdiction, to allow for the extraction of their royalty payments from the radio stations, and through them the advertisers. This is further complicated by this specific situation where Triple J, part of the public broadcasting network in Australia gains no commercial benefit from advertising.

Once ideas are 'out' on the net, they are hard to destroy, shield, hide or 'bring back'. This is a function of the nature of digitisation – there is no discernable 'original'. Once an idea has a wide circulation it cannot be unlearned from society. Thus if one copy of a digitised movie is available on the Internet and if there is interest in it, that copy will rapidly multiply. Trying to regain exclusive ownership of that idea will become virtually impossible. Similarly digital property is of limited point in destroying for the same reason. It may be possible to blow up someone's house, but

in the digital political economy where a copy can be made of the house next door for no cost or production time, this has a great deal less effect.³⁶ Within the Internet, and in particular when talking about the digital economy, there is a conflict between the notions of information exchange as a way of communicating, such as might be found in a conversation between two people off screen, and information as a copyrighted product, such as an off screen artist's painting.

Information plays multiple roles on the Internet, in the digital political economy, it is simultaneously a currency and an interface.³⁷ As a currency, it holds the value of the digital economy. The value of this economy however rests in the notion of copyright. That is the right of the author of any piece of work to control the right to copy it. Thus they can charge others for the right to have a copy of their work; they can also sell or rent this right to others (such as a publisher, or record company). However in the digital world, the act of observation is also the act of copying.

The first laws relating to copyright come from England in the Statute of Anne of 1710 (the 1709 Copyright Act),³⁸ which gave the holder of the rights to a printed work exclusive rights for fourteen years with a further extension of fourteen years if the author was still alive. The length of copyright protection has subsequently grown. The Bern convention of 1928 on International Copyright grants copyright protection

36 It is however possible to deny access to 'property', at least in the short term, such as through a denial of service attack on a web site.

37 While the idea of information as a literacy is also a popular understanding of the term, within the framework of wetware, software, and hardware, the development and understanding of a literacy falls more into the realm of wetware, as it will have a constancy of production for each additional unit (individual) that develops that literacy.

38 L. Lessig, *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin, 2004, p. 86.

to a publication for the lifetime of the author and fifty years after their death.³⁹ After this time the work will be considered to have no restriction for its copy and distribution.⁴⁰

The United States congress passed the Sonny Bono Copyright Term Extension Act in 1998. This law increased the length of copyright in that country by a further twenty years to a total of seventy years following the death of the author, and between seventy five and ninety five years for the productions of a corporation.⁴¹ The recent ‘free trade’ agreement between Australia and the United States will see Australian copyright law similarly extended to ‘harmonise’ the intellectual property laws between the two countries. As the musical group Negativland noted of the impact of this extension:

The Sonny Bono Copyright Term Extension Act's extension of copyright to 75 years plus the life of the creator means that NOTHING created in our lifetime will ever reach the public domain.⁴²

Copyright is an entirely socially constructed value. It only has value if people (consumers) give it that value. If everyone just ignored to ‘rights’ of the producers then those producers would cease to derive value from their creations. Owning ideas is not like owning apples. While both an apple and an idea can be locked in a box and no one can access them, in this case both are deprived of the realisation of their value. The value of the apple is the eating. The value of the idea in a copyrighted world is that it can be sold (or denied) to others. Once the apple is eaten, it is gone,

39 *The Rome Copyright Convention*. 1928, Article 6 (1).

40 Long-lived authors get more value for their work, than those who die early.

41 S. Vaidhyanathan, *Copyrights and Copywrongs: The Rise of Intellectual Property and How it Threatens Creativity*. New York: NYU Press, 2001.

42 Negativland, ‘Negativland Statement in Support of Peer to Peer File Sharing’, http://www.eff.org/IP/P2P/MGM_v_Grokster/20020121_negativland_essay.html [accessed 21.6.2004].

however once a copyright, for one copy is sold, then it relies on the social construction, a law agreed to by society and individual citizens, to prevent that idea simply being endlessly recopied with no return to the copyright holder. On the Internet, where communication necessarily creates copies of what is being said to all participants and observers, these laws of copyright conflict with other socially constructed laws allowing free communication between members of a society. The struggle on the Internet then becomes one of who controls the law and process of copying and distributing that software and content (ideas) which are ultimately just patterns of 0s and 1s.

These consumers of the digital economy's products face the dilemma that they maximise their individual return if all information is freely distributed, while at the same time they benefit from the production of new information, which might be hampered if the producers did not receive a return for this production. These different groups of producers and consumers of the wealth of the digital political economy often have an overlapping membership. An individual digital citizen may belong to a variety of these groups. They each have a different ideal position on how free or proprietous information should be in the digital political economy, and different levels of access to, and influence over, political power to try to enforce their own discourse of digital citizenship. How the struggle for control of information, in terms of how it is understood as either a good that you own, or as a place where communication occurs, is resolved, will determine economic relations within the digital political economy. In the traditional Marxist analysis, the control of the means of production was the basis of power and domination. In the digital economy it is who defines how information and communications is commodified in each instance.

This information is both the means of communication as well as the currency of digital value. The control of the digital political economy sits enmeshed with the Internet as a mode of communications and neither analysis can be extracted from the other. In the flow of information, communication and content, cannot be separated.

Pierre-Joseph Proudhon famously argued in his 1840 treatise *What is Property?* that 'property is theft',⁴³ that owning property deprived others of its use and therefore was akin to stealing.⁴⁴ This argument could be far more forcefully made about copyright. Traditionally governments have tried to balance the incentive to create ideas, especially the wide ranging and expensive ones that make up large software platforms and applications as well as many entertainment products and the return to authors and artists (and their publicists and publishers) against the value to society of the free exchange of ideas and information. As Paul Romer noted:

We produce goods by rearranging physical objects, but so do other animals, often with remarkable precision. Birds build nests, bees build hives, and we build guns and cars.... Where people excel as economic animals is in their ability to produce ideas, not just physical goods. An ant will go through its life without ever coming up with even a slightly different idea about how to gather food. But people are almost incapable of this kind of rote adherence to instruction. We are incurable experimenters and problem solvers.⁴⁵

The idea kept in a box to protect it from others copying has no value, yet all members of society are richer for good ideas that are distributed freely. Also as the cost of access to information increases the inequalities caused by those who are

43 Pierre-Joseph Proudhon, *What is property?* Edited and translated by D. R. Kelley and B. G. Smith, Cambridge, England and New York, NY, USA: Cambridge University Press, 1994.

<http://etext.lib.virginia.edu/etcbin/toccer-new2?id=ProProp.sgm&images=images/modeng&data=/texts/english/modeng/parsed&tag=public&part=1&division=div2> [accessed 14.6.2005].

44 Although this was part of his argument, it was not, as is often believed, his conclusion. Instead Proudhon viewed private property ultimately as the foundation of liberty.

45 P. Romer, 'Ideas and Things', *The Economist*, 11th September 1993. As cited in R. Florida, *The Rise of the Creative Class*. North Melbourne: Pluto Press Australia, 2003.

excluded from the information on economic grounds expand. These two conflicting notions of the value of the free flow and distribution of ideas to society at large, and the importance of the property rights of the creators, or more accurately owners of ideas is at the centre of the debate between competing discourses of citizenship on the Internet.⁴⁶ A second feature of the dichotomy of the free flow of ideas and content as opposed to the reward for the creators of those ideas is that many ideas rely on the foundation of other previous intellectual constructions. Isaac Newton famously said of his work in physics that ‘If I have seen further it is by standing on the shoulders of giants.’⁴⁷ Intellectual property is often built on the foundation laid by other intellectual work.

William Shakespeare based his famous play *Romeo and Juliet*, written around 1594, upon a poem by Arthur Brooke *The Traicall Historie of Romeus and Juliet* written in 1562.

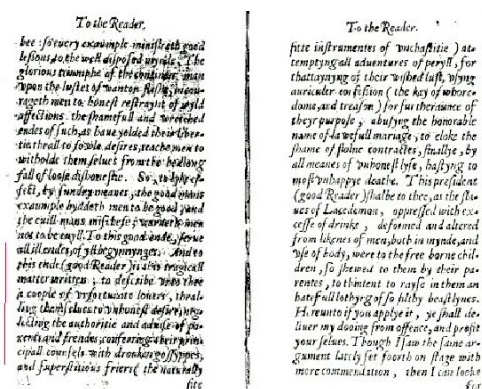


Figure 36
The Introduction to Brooke's Poem

<http://www.chatham-nj.org/coin/English9/Patel/Arthur%20Brooke%20web.htm>
[accessed 5.5.2005]

⁴⁶ The BBC's use of the Internet to distribute the content it has created demonstrates how valuable the Internet can be as a vehicle to distribute information throughout society, especially when the exploitation of the value of copyright was not the purpose of, or funding for, the information's development in the first place.

⁴⁷ In a letter to fellow scientist Robert Hooke on the 5th February 1676, although the quote has also been attributed to Benjamin Franklin and Bernard of Chartres.

The tale of Brooke's poem can trace its origin back to the writings of Xenophon in the second century AD. Xenophon's story was modified in 1476 by Massusccio Salernitano added the names of the Montague and Capulet Families whose feud is at the heart of the story. In 1530 Luigi Da Porta introduced the setting of the story as fair Verona, and it was the retelling of the story again by Matteo Bandello in 1554 that seems to have been the inspiration for Brooke's poem.⁴⁸ Brooke notes the derivative nature of his work in his introduction the reader.

Though I saw the same argument lately set forth on stage with more commendation than I can look for – being there much better set forth than I have or can do – yet the same matter penned as it is may serve to like good effect, if the readers do bring with them like good minds to consider it, which hath the more encouraged me to publish it, such as it is. ⁴⁹

More recently the story was retold as the West Side Story in 1957 by Leonard Bernstein and again in 1996 in the Baz Lurman produced film, *William Shakespeare's Romeo and Juliet*.⁵⁰

⁴⁸ J. K. Andrews, 'Romeo and Juliet: Out of Old Cloth', *The Shakespeare Theatre*.
<http://www.shakespearedc.org/pastprod/romessay.html> [accessed 10.7.2005].

⁴⁹ A. Brooke, *The Traicall Historie of Romeus and Juliet*.
<http://www.clicknotes.com/romeo/brooke/Bttr.html> [accessed 5.5.2005].

⁵⁰ Other film versions of the story were released in 1936, 1954, 1966, and twice in 1968.
<http://www.romeoandjuliet.com/author/films.html> [accessed 6.5.2005].



Figure 37
William Shakespeare's *Romeo and Juliet*, 1996
<http://www.romeoandjuliet.com/>
[accessed 3.2.2005]

Plays and stories derived and reinterpreted from others sources are not always subject to copyright, although Shakespeare's plays would often be poached and republished as 'Bad Quartos'. However the generation of digital content is often based on the use of other digital content. To write this thesis required the use of a word processor and computer operating system. Patent and copyright law is designed to find a balance between the reward to the generator of the content and the value of the idea to be both freely distributed through society and used as a building block for new creations.

Ironically, as the social structures undergo what Paul Virilio has termed acceleration of culture,⁵¹ and the production and transmission of ideas grows, the ability to use other's ideas as building blocks of new constructions is reduced. As both patents and copyright laws more generally extend the exclusive use of ideas to the person who creates them, and exclude all derivative use. This process is accelerated and exacerbated online. The entire structure of the World Wide Web came into being only in 1991. All copyrighted content in that medium will therefore be subject to complete control of the producer until 2066. How much of this material will be a valuable addition to the public domain, given the continued rapid development of technology is questionable. In this context the value of Tim Berners-Lee's decision to release the World Wide Web directly into the public domain, with no copyright restrictions can be seen in its appropriate context.⁵²

The Digital Self

Sherry Turkle's famous book *Life on The Screen: Identity in The Age of The Internet*⁵³ was first published in 1995, a time when the World Wide Web was still a relatively new development, particularly in terms of popular cultural awareness. The Internet, while rapidly growing, had still not yet reached a 30% household penetration rate in the United States. In this context Turkle's work looked at the construction of identity and how the computers and the Internet mediated and transformed this construction. Turkle did not see context in terms that require

⁵¹ P. Virilio, *Speed and Politics: An Essay on Dromology*. Translated by M. Polizzotti, New York: Columbia University, 1986.

⁵² T. Berners-Lee, *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web*. San Francisco: HarperSanFrancisco, 1999.

⁵³ S. Turkle, *Life on the Screen: Identity in The Age of The Internet*, New York: Simon & Schuster 1995.

intervention, regulation and change to emerge, the focus was on the screen and those with access, rather than the broader construction of the Invisible Empire. While, at the time, the disabled having cybersex online may have seemed empowering, the failure to intervene on behalf of Rose Boulding points to more important issues that need to be addressed in the contemporary information and telecommunication environment, particularly at the level of policy.

The Invisible Empire while manifesting on screen through the gates of empire, also reaches through to influence the off screen world. So too an individual user of the Internet will have different aspects of their self manifest off and on screen. On screen, the self is fragmented into many discrete digital identities that together construct the digital self.

Neo: Right now we're inside a computer program?

Morpheus: Is it really so hard to believe? Your clothes are different, the plugs in your arms and head are gone, your hair has changed. Your appearance now is what we call residual self-image; it is the mental projection of your digital self.⁵⁴

Rather than the Avatar representing a single and complete digital self through cyberspace the individual presents a variety of digital identities through different applications on the Internet. In each case, these identities represent separate politicised selves. At its most simple level, this is what happens when typing 'I' in an email; the act of writing creates a projected self. It is the collection of all these digital identities that comprises the digital self.

⁵⁴ *The Matrix*. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 1999.



Figure 38
Nokia Advertisement⁵⁵

Some of these digital identities are closely aligned to an individual off screen and easily attached or attributed to that individual, such as when an email or SMS is sent from one person to another with whom they have an existing off screen/analogue relationship. Other digital identities are more distant and the link less strong, such as when a web page is customised based on a user's history of visits. Still others will be quite distantly related to the off screen self, such as when posting messages anonymously on a bulletin board, or entering Internet chat rooms using an alias. In

⁵⁵ This advertisement appeared in *Ralf Magazine*, Sydney: ACP Publishing, February 2004.

these cases, much of the link between the digital identity and individual are left behind, or substantially hidden, including notions of class, race and even gender.⁵⁶ While the increasing convergence of technology is leading to a greater use, both in terms of frequency and potency, of the digital self, there will continue to be a variance in the level of divergence between the different aspects of the digital and off screen self.

It is possible to map out an individual's digital self, monitoring the collection of their various digital identities displaced through time and space, with differing implications and association with the off screen identity of the digital self. When a landline call is made either to or from the person, their identity can be mapped both in the projected location where the call is received and where it originates. This mapping produces a different signature, depending on whether the call was outgoing or incoming; it may be further dispersed in space if it is a conference call. The link to the individual's off screen identity will be quite a strong one. In time this type of digital identity interaction would have a definite and concurrent start and end.⁵⁷ When a call is made to a mobile phone, the interaction may move through space at one or both ends of the connection. Once again, there will be a discrete and parallel

56 Operation Innocent Images was a FBI sting operation launched in 1995 designed to catch paedophiles, by having agents pretend to be young teenage girls in Internet chat rooms. The problem was that the FBI agents, both male and female were unfamiliar with the popular culture and unique communication style of that demographic. However after bringing in a number of girls in that age group from a local high school to train them, they were able to successfully adapt these identities. The program has lead to the arrest of 2200 people across the United States for swapping child pornography, and arranging to meet minors for sex. This illustrates that new identities, unrelated to a person off screen, can be adopted, but they may require training to achieve. 'What about Justin Timberlake? Is he still hot, or is that so two years ago?'

P. Ly, 'Girls teach teen cyber gab to FBI Agents', *The Washington Post* 4th June 2003. <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&contentId=A10052-2003Jun3¬Found=true> [accessed 20.6.2005].

57 Although in the case of a voice mail message it would be similar to an email, with a time sent and a time received.

existence in time of the connection at both ends. Each application that acts to project a digital identity produces a different type of signature on this digital identity map, and differing appearances in time. When an email is sent, it ‘interfaces’ with off screen and creates a mapped signature at the time it is sent, and then again later each time it is received. A short message service creates two related signatures separated in time. It is sent, and then received. A web page creates a signature at the point in time and space when it is first uploaded, and then each time it is viewed. In this latter case, the relationship to the person who first created the page may become quite distant.

To develop a complete map of an individual’s digital self, it is necessary to map the various discrete identities through time and space, as well as by application. When mapping an individual’s digital self in space, there is a small signal for each point in space. Through all these applications, there are different effects on those creating content and those receiving it (the audience). There will be distinct impacts on resources, space, time, the level of activity involved and identity to both these entities depending on the application.

Content Creator

	Resources	Space	Time	Active/Passive	Address/Identity
Application					
Face to face	None	Present in space	Present in time	Active involvement at time	Yes, Audience will have a physical identification with Content Creator
Landline-Voice telephony	Phone line (mobile or landline), phone number of Audience	Present in remote space	Present in time, unless accessing voice mail	Active involvement at time	Sometimes, depending on caller ID, and type of content (what the Content Creator tells the Audience on the phone)
Mobile Phone-Voice telephony	Phone line (mobile or landline), phone number of Audience	Present in remote space	Present in time, unless accessing voice mail	Active involvement at time	Sometimes, depending on caller ID, and type of content (what the Content Creator tells the Audience on the phone)
Short Message Service	SMS transmitter, normally a mobile phone, but it can be through a computer and Internet gateway, Phone number of recipient	Present in remote space	Not present at time	Active in sending	Not necessarily, can be blocked
Email	Email address and some way to send from it. Address of recipient(s)	Not present	Present to send, but not at the time or reception	Active in sending	Normally, can be blocked with difficulty
Web Page – Static	Simple skills with web page design and posting	Not present	not present in time (only had to be present to post it)	Passive once posted	The web page will require an address, the content producer is anonymous
Web Page - Real Time Event	Real time Internet feed, data casting technology	Present at location of information transition	Present in time	Active in sending	The web page will require an address, the content producer is anonymous
Web Page - Mass Customisation	Complex data system, customer analysis and memory	Not present	Creator not present in time	Passive once created	The web page will require an address, the content producer is anonymous
TV/Radio	Transmission device and content to transmit	Present at remote space	Present in time	Active	Frequency of transmission becomes the address

Figure 39
Content Creation and Different Applications

Audience

	Resources	Space	Time	Active/Passive	Address/Identity
Application					
Face to face	None	Present in Space	Present <u>in</u> time	Active involvement at time	Yes, Content Creator will have a physical identification with the Audience
Landline-Voice telephony	Landline phone line	Present at phone	Present <u>in</u> time, unless accessing voice mail	Active involvement at time	The address is only for the location, not the person
Mobile Phone-Voice telephony	Mobile Phone	Present at 'any' location	Present <u>in</u> time, unless accessing voice mail	Active involvement at time	Address is the phone number, but much more associated with the person than the landline
Short Message Service	Mobile Phone	No necessarily present, can be at 'any' location when message is received	Not present at time	Passive reception	Address is the phone number, but again associated with the person
Email	Email address and some way to access it	Any location (although the location will need some way to receive emails)	Not present at time	Passive reception	Will require email address
Web Page – Static	Address of site, computer with Internet and web Access	Any location (although the location will need some way to receive web pages)	At their leisure	Active, must seek out content	None
Web Page - Real Time Event	Address of site, computer with Internet and web Access	Any location (although the location will need some way to receive web pages)	Present <u>in</u> time	Active, must seek out content	None
Web Page - Mass Customisation	Address of site, computer with Internet and web Access	Any location (although the location will need some way to receive web pages)	Present <u>in</u> time	Active, must seek out content	Yes, their identity is determined by the system in order to create customised content
TV/Radio	A reception device	Any location	Present <u>in</u> time	Passive	None

Figure 40
Audience and Different Applications

Applications on the Internet interface with off screen identities and ideologies. A small signature for each person viewing a web page that the 'mapped' individual had authored, a slightly different signal indicating where an email he or she had previously sent is being received and another again where that individual actually sends an email. A different signature also for each time an SMS is sent or received, and again for phone calls. Imaging this digital-signature spatial map moves it forward through time, so that these signatures appear and disappear, as they are engaged and disengaged. A hacker sending a worm out onto the Internet creates a wave of signatures, as each computer became infected and passed the worm along to

others. While many of the map's features centre on the person being mapped, others will be widely dispersed through space. Similarly the effect on, and potency of, each of these signatures in relation to the mapped individual's identity, both digital and off screen, will vary widely. For some individuals, such a map is highly complex. Each separate application is integrated with others, with multiple Web, email and phone signatures appearing and disappearing. By contrast, a map of another person's digital self might reveal a few telephone calls isolated in time and moving little through space.

A complete digital self exists only for the person that it represents. Other individuals on the screen encounter fragments of digital identities, only discrete parts of a whole identity. When others encounter this self, rather than as experience it as a whole, they will come into contact with it through interfacing with discrete digital identities.⁵⁸ Digital selves, other than your own, can only be experienced at the narrow interface of these identities. Two digital identity maps can be overlaid on each other to reveal where two on screen individuals come into contact with each other and at what point in both time and space the interface of their discrete and varied digital identities occurs and what type of association exists between these identities and the individual off screen.

Mapping an individual's digital identity through space and time in its entirety, once a digital identity reaches a certain level of sophistication, becomes virtually impossible. There are digital identities that become quite detached from the off

⁵⁸ As noted above, for the digital gambler each credit card number represents a distinct identity.

screen self. It is impossible to track the location of every person who accesses a Web site, or reads a posting on a bulletin board. Reasonable approximation can be made.

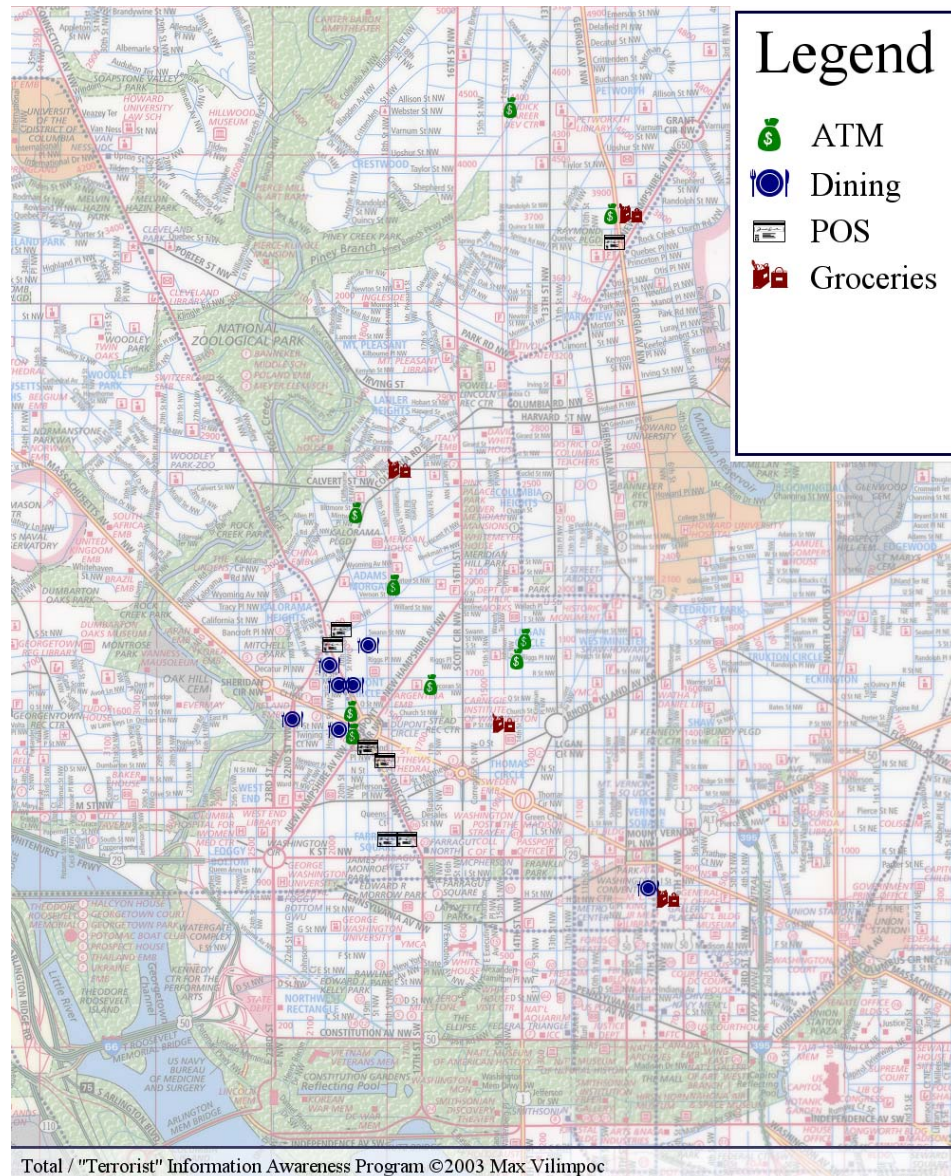


Figure 41
Mapping Digital Identity. The Terrorism Information Awareness Program
<http://vilimpoc.org/research/datavis-tia/>
 [accessed 29.9.2003]

This image represents the electronic transactions of an individual mapped in space as part of an illustration of what the Terrorism Information Awareness Program (formerly the Total Information Awareness Program) might be able to ‘map’ about an individual.⁵⁹

⁵⁹ <http://vilimpoc.org/research/datavis-tia/> [accessed 22.9.2003].

Different individuals hold diverse levels of sophistication and control of their digital identity and distinct levels of awareness of each identity's relationship to the individual off screen. Some individuals are better able to manipulate their digital identities and be more aware of the links between a particular digital identity and themselves off screen and how these can be manipulated. Similarly, the size or potency of the digital self, the size of their digital fingerprint, varies between individuals depending on their level of connectivity and digital literacy.

While the digital self, through its various digital identities, is quite independent of the individual off screen, the digital self and an individual share a number of attributes. They generally have the same bank account, both will fear sanction from that state, such as fines or being sent to prison, and they will share personal relationships.⁶⁰ When an individual is googled⁶¹ information is being gained about that person, by examining the aspects of their digital self that are more closely linked to their off screen identity. When a person is googled the search engine tries to link their name with their collection of digital identities associated with the person's off screen name. While these may have been generated by the named individual others will not.⁶²

The Terrorist Information Awareness program is funded by DARPA, just like the early Internet. <http://www.darpa.mil/iao/TIASystems.htm> [accessed 13.6.2005].

60 A recent survey shows that just over half of respondents to a recent Internet survey thought that engaging in cybersex was being unfaithful to their partner. M. Bennis, 'Sex in cyberspace boom' *The Sydney Morning Herald*. 27th July 2003.

61 Being 'googled' refers to searching for someone's name on the Internet through the Google search engine.

62 It is sometimes recommended that people Google themselves to keep track of their various digital signature.

Image Removed

Figure 42
Cartoon by Charles Barsotti, 28th October 2002
<http://www.cartoonbank.com/>
[accessed 24.6.2005]

The digital self as well as the individual off screen can become the victim of a crime. These crimes can occur to both aspects of the identity, or independently to just the digital self or just the analogue off screen individual. Thus when a crime is committed against some property that both these ‘selves’ share, such as a bank account in the case of a digital theft or fraud, both will be affected. However crimes can also be committed against one aspect of the self, or one digital identity shard. If there can be a crime against this digital self then there is a sovereign citizen because criminals attack a regulated self. The next chapter takes up this argument and examines the role of the digital citizen in the construction of the digital deviant.

D. Dasey, ‘A quick self-Google once a day to guard your reputation’, *The Sun-Herald*. 23rd May 2004. <http://www.smh.com.au/articles/2004/05/22/1085176043551.html> [accessed 24.5.2004].

This section has provided a foundation for the construction of the Digital Empire. Chapter One, 'History of Exclusion: Telecommunications and the Universal Service Obligation in Australia' provided the history and context for the telecommunications environment in Australia. 'The Gates of Empire' then turned to the Invisible Empire and the understanding of access and exclusion that is manifest at the screen, the gateway to access. Finally this chapter has illustrated the effects of digitisation and the network that constructs the Invisible Empire. The next section turns to the Invisible Empire on the screen, how the self and sovereignty manifests and how power is exercised and distributed.

Chapter 4

The Digital Citizen



Figure 43
Photography by Grant V. Faint¹

In the early 1990s, when the Internet was yet to make its full transition from the research and university community and into the wider population and popular cultural currency, there was a focus on the creation and study of behaviour inside MUDs and MOOs. MUD is an acronym that stood originally for Multi User Dungeon and then later Multi User Dimension, as they moved away from their role playing game roots. They originated as multi player games, in a text based environment where players could virtually interact with both the world and each

¹ From the Cover of D. Petre & D. Harrington, *The Clever Country: Australia's Digital Future*. Sydney: Pan Macmillian, 1996.

other. If a player in the game gave the command to swing their sword at the troll, other players would read a text description 'Mike swings his sword at the troll'. While this was the origin, these environments soon became a place more for social (and sexual) activity for their participants. MOO stood for MUD Object Oriented where players could use programming language present that allowed players to better customise or alter and interact with parts of the virtual world.²

In March of 1993, there was an incident in LambdaMOO <http://www.lambdamoo.info/>, one of the most famous of these early environments, which was hosted on a computer at Xerox Corporation in the United States. In a common area of the virtual world (the Lounge), one of the characters present, named Mr_Bungle, took control of the description of the actions of another character present, Exu, and proceeded to describe them (the character Exu in this case was not gendered, although Mr_Bungle was gendered as a man) performing a variety of sex acts on his character. Soon after Mr_Bungle was expelled from the room. He then took control of a second character Moondreamer and proceeded to describe the two 'controlled' characters performing a variety of unsavoury sex acts on each other and themselves. Eventually this came to an end when a senior player was able to lock Mr_Bungle in a virtual cage that ended his control over the description of the two character's actions. Following this event, the whole MOO community was involved in a debate as to what should be done following this on screen digital 'rape' although only the controllers of the MOO (known as wizards) could in reality actually take

² These type of games and places have now evolved and exist in a more multimedia focused environment on the Internet. Massively Multiplayer Online Role-playing Games (MMORPGs) such as Sony's *Everquest*, and *Lineage* have hundreds of thousands of players, although many text based MUDs and MOOs still operate. The construction of MMORPGs is the focus of analysis in Chapter Six, 'Core and Periphery: The Invisible Empire'.

any action. After a meeting called specifically to debate the issue, one of the game wizards made the unilateral decision to erase the Mr_Bungle account.³

This now famous case revealed important questions about digital society – the notions of the rights and responsibilities of citizens, sovereignty and even economics that still have resonance in the current Internet environment. The characters involved illustrate a number of aspects of the digital self. The avatars of the players that existed in these environments were strongly related to a player's off screen identity, yet only an individual fragment of the actual player's identity. There are conflicting profiles of the characters involved, since the players of both Exu and Moondreamer more commonly appeared as the characters Legba and Starsinger.⁴ Legba was off screen, a politically active female university student in Washington State, Moondreamer was a woman in Haverford Pennsylvania and Mr_Bungle was played by another university student, from New York. He returned to LambdaMOO soon after as a new character called Dr Jest, who, while not well liked was never expelled from the MOO. The device he used to take control of their characters, a program called a 'Voodoo Doll', was not uncommon in the MOO. No one was physically harmed, although the two people whose characters were attacked were upset by the incident. Mr_Bungle appeared virtually at the hostile meeting where his punishment was being discussed. The fact that the virtual representation of the New York student as Mr_Bungle could appear at this hostile meeting – where he was obviously in no physical danger – confirms the ambivalence, confusion and concerns raised by this

³ J. Dibbell, 'A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society', *The Village Voice*, 23rd December 1993.

³ R. Burnet & P. D. Marshall, *Web Theory: An Introduction*. London & New York: Routledge 2003

⁴ Both these players possessed a large 'wardrobe' of these different digital identities.

incident. Each character was an individual digital identity of the people involved, an aspect of their total digital self, both on LambdaMOO and through the rest of their digital existence. The attack had been entirely on their digital self. The two women in question were given the email address of the player of Mr_Bungle in case they wanted to make a formal complaint to his university's systems administrator. Neither did, but this event illustrates that the incident did have the potential to spill out of the digital world and have off screen consequences on Mr_Bungle's player – his off screen self.

To conclude this ambiguous and disturbing moment of transgression, a higher authority in the form of a wizard (or systems administrator) unilaterally decided to remove the offending party from the system. This event followed a previous statement from 'the wizards' that they would no longer play a policing role on the system and would only handle technical issues. The digital democracy became a digital dictatorship. This event sparked a more formalised type of online governance of the players. The wizards later began to again play a more active role, as it became apparent that in this type of environment technical decisions are necessarily political decisions.⁵ The notions of the digital citizenry and a digital sovereign in a position of authority began to be formalised. Julian Dibbell explored the consequences of this episode in 1993:

I have come to believe that they announce the final stages of our decades-long passage into the Information Age, a paradigm shift that the classic liberal firewall between word and deed (itself a product of an earlier paradigm shift commonly known as the Enlightenment) is not likely to survive intact. After

⁵ T. L. Taylor, 'The Social Design of Virtual Worlds: Constructing the User and Community Through Code', in M. Consalvo, N. Baym, J. Hunsinger, K. Jensen, J. Logie, M. Murero, & L. Shade (eds), *Internet Research Annual, Volume 1: Selected Papers from the Association of Internet Researchers Conferences 2000-2002*. New York: Peter Lang, 2004.

all, anyone the least bit familiar with the workings of the new era's definitive technology, the computer, knows that it operates on a principle impracticably difficult to distinguish from the pre-Enlightenment principle of the magic word: the commands you type into a computer are a kind of speech that doesn't so much communicate as *make things happen*, directly and ineluctably, the same way pulling a trigger does.⁶

Dibble was writing twelve years ago (in 1993) when the World Wide Web was still in its infancy. This chapter explores what has happened since then as the on screen environment has developed and grown. The Invisible Empire stretches its influence both off screen and online. While Burnett and Marshall accurately note that 'All too many researchers have allowed themselves to be trapped by a false real/virtual world dichotomy',⁷ Part II of this dissertation focuses specifically on how the foundations of this Empire are constructed on screen. This analysis is then used to inform Part III where the analysis shifts to the interface between the Invisible Empire and the off screen analogue world. This chapter looks at this construction from the perspective of the digital citizen; what is required to fulfil this role; and the consequences for those who fall outside of the digital society. Ten years ago much of the early work on the Internet's identity, community and economy were focused on MUD and MOO communities.⁸ While of historical interest, it is dangerous to routinely apply these early studies to the wider Internet that has evolved. These environments were a complete and sealed totality – and there was someone in charge with both the

⁶ J. Dibbell, 'A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society', *The Village Voice*, 23rd December 1993.

⁷ R. Burnet & P. D. Marshall, *Web Theory: An Introduction*. London & New York: Routledge 2003, p. 70.

⁸ J. Dibbell, *My Tiny Life: Crime and Passion in a Virtual World*. New York: Henry Holt, 1998.

L. Kendall, 'MUDder? I Hardly Know Er! Adventures of a Feminist MUDder', in L. Cherney & E. R. Weise (eds), *wired_women: Gender and New Realities in Cyberspace*. Seattle: Seal Press, 1996.

L. Nakamura, 'Race In/For Cyberspace: Identity Tourism and Racial Passing on the Internet', *Works and Days*, 1995, volume 13, numbers 1-2.

E. Reid, 'Communication and Community on Internet Relay Chat: Constructing Communities', in P. Ludlow (ed), *High Noon on the Electronic Frontier*. Cambridge M.A.: MIT Press, 1996.

S. Turkle, *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster, 1996.

D. Gauntlett, *Web.Studies*. New York: Oxford University Press, 2000, p. 6.

authority and capacity to control the environment: a digital sovereign. This is strikingly different from the wider Internet where no one is 'in charge'. The notion of digital identity, where everyone is dealing with characters created within the same framework, managing similar limitations and parameters, is strikingly different from the Internet, where an individual's digital identity is spread across a number of different applications and states of connectivity. When sharing a text-based world, it does not perform the scale of bandwidth differences.

Dibbell's words are prescient in that they acknowledge there is a fundamental shift in the digital world in traditional notions of the relationship between what is said, or typed (ideas), and how they are communicated and recorded. Property and action are also transformed concepts in this environment. This chapter explores the digital citizen, which is closely linked to an exploration of digital sovereignty. The transition from off screen goods and services to ideas online has a fundamental impact on the economic and societal relations of the digital society which is formed by the digital political economy. As Trevor Barr has observed, 'Every society is an information society.'⁹ The ability of citizens to communicate both with each other and with the state has been integral to the concept of citizenship since the time of the Athenian democracy in ancient Greece. With the growth of telecommunications and the Internet in particular, what are the implications for the concept of citizenship? An answer to this question informs the constitution of a non-citizen. The key is to monitor mechanisms for exclusion and how this status is rationalised

⁹ T. Barr, 'Forces for Change: Communications as Catalyst', *New.media.com.au: The Changing Face of Australia's Media and Communications*. Sydney: Allen & Unwin, 2003, pp.20-39.

What is Citizenship?

Once someone asked me if I knew the difference between a citizen and a civilian. I can tell you now; a citizen has the courage to make the safety of the human race their personal responsibility.

– Johnny Rico¹⁰

Traditionally citizenship has described the codified relationships of certain stakeholders in a society, between both themselves and the state. These relationships are seen in terms of rights and responsibilities.¹¹ The rights of the citizen are the privileges provided to them by virtue of their status as citizens of that society. These rights include a role in deciding how the society is run, and are embodied in the notion of free citizens voting for their rulers and laws in ancient Greece and Rome. Bundled in this notion is also the right of citizens to meet and communicate with each other. The second defining feature of traditional citizenship is responsibilities – the obligations that come with the status of citizenship. Some of these are codified, such as periods of compulsory military service or the requirement to pay taxes. But they also include some less codified obligations, such as obeying societal norms and laws.

As an Australian citizen, there is a network of rights and responsibilities with all other Australian citizens:

The right to vote to help elect Australia's governments;
The right to apply for any public office or to nominate for election to Parliament (subject to *s44 (i) of the Australian Constitution*);
The right to apply for an Australian passport and to leave and re-enter the country without a resident return visa;

¹⁰ *Starship Troopers*. Written by Ed Neumeier, directed by Paul Verhoeven, Columbia Tristar, 1997.

¹¹ D. Held, 'Citizenship and Autonomy', *Political Theory and The Modern State: Essays on State, Power and Democracy*. Cambridge: Polity Press 1993, p. 190.

The right to seek assistance from Australian diplomatic representatives while overseas;
The right to apply to enlist in the defence forces and for government jobs requiring Australian citizenship; and
The right to register your child (under 25 years of age born overseas) as an Australian citizen by descent.¹²

With citizenship, there are also certain responsibilities expected of all Australians.

They include the following requirements:

Obey the laws and fulfil your duties as an Australian citizen;
Enrol on the Electoral Register and vote at federal and state/territory elections and referenda;¹³
Serve on a jury, if called on;
Defend Australia, should the need arise.¹⁴

Socrates in ancient Athens was forced to drink poison not for failing to perform his military service,¹⁵ but for corrupting youth and interfering with the religious order of the city.

The dichotomy between rights and responsibilities, and the correlation with ideas of an individual's responsibility, and the protection provided to that individual by the state, by virtue of their rights as a citizen, is one of the fault lines of western politics. Defining how the notion of citizenship operates in any given society is an inherently political process. The use of the idea of 'mutual obligation' in the provision of social services to the disadvantaged in society by the both the conservative Howard Liberal

12 'Australian Citizenship', Department of Immigration and Multicultural and Indigenous affairs. <http://www.citizenship.gov.au/why.htm#rights> [accessed 4.9.2003].

13 In the context of Australian citizenship, it is a responsibility to vote, not a choice. A citizen is forced to participate in democracy. While it is possible to cast an informal vote, a polling booth must be attended to perform this task, the citizen must opt out, rather than in.

14 'Australian Citizenship', Department of Immigration and Multicultural and Indigenous affairs. <http://www.citizenship.gov.au/why.htm#rights> [accessed 4.9.2003].

15 Socrates served at both Delium and Amphipolis during the Peloponnesian War.

Government and the Blair Labour government is a particularly evocative case study.¹⁶

The third important aspect of citizenship which is often overlooked is the requirements that must be met to be a citizen. Not everyone in a particular society will be an equal citizen with the rights from – and responsibilities to – that society. In some cases this exclusion is codified. In Ancient Greece women could not vote, own property, or sue for divorce they were clearly not citizens in the mode of men. Amongst men, it was still only those who were born as citizens, rather than those born slaves, who met the requirements of citizenship. The proportion of those who were citizens was relatively low, as opposed to the underclass of non-citizens. In western style democracies such as Australia, which claims to have universal suffrage amongst its adult population,¹⁷ there would be an expectation that this underclass would not be present. Within contemporary Australia there is universal suffrage for voting both a right and an obligation under Australia's system of compulsory participation in the electoral process. However there are also people who, while eligible to carry an Australian passport, clearly do not have the same access to a number of 'rights' in terms of health care, education, political enfranchisement and communication between themselves and the state that others do. The circumstances of the majority of Indigenous Australians discussed in Chapter One is an obvious

16 S. Schooneveldt, 'Do mutual obligation breach penalties coerce compliance with government expectation', *Australian Journal of Social Issues*, May 2004, volume 39, issue 2, p. 155.

R. Goodwin, 'Structures of mutual obligation', *Journal of Social Policy*, October 2002, volume 31, issue 4, p. 579.

A. McClelland, 'Mutual obligation and the welfare responsibilities of government', *Australian Journal of Social Issues*, August 2002, volume 37, issue 3, p. 209.

S. Wilson & N. Turnbull, 'Wedge Politics and Welfare Reform in Australia', *The Australian Journal of Politics and History*, September 2001, volume 47, issue 3, p. 384.

¹⁷ Through the *Commonwealth Franchise Act* 1902 and amendments to the *Commonwealth Electoral Act* in 1962.

illustration of this. As noted in that chapter, citizenship is more than just a status that can be conferred on paper. It must be reflected in the opportunities for full participation in society by each member (citizen) of that society. In addition, those who fail to live up to their 'responsibilities' of the Australian notion of citizenship – those seen as criminal or deviant – will forfeit their 'rights' as a result and join these non-citizens outside the mainstream. Just as with rights and responsibilities, society or more specifically the government, has a role to ensure that all members of a society with universal suffrage, are sufficiently empowered to meet these requirements. At what point this can be said to have occurred, is again a major fault line within western politics, intimately integrated into the debate over rights and responsibilities.

Earlier in this thesis, I cited Lury's position that in a consumer culture an individual's ability to consume, as well as how the consumed goods and services are provided, defines their social position.¹⁸ The citizen as a consumer with rights, and responsibilities, must meet the requirement to be able to engage at the required level and mode of consumption. In a neo-liberal, post fordist environment, the right to consume frequently supplants the right to work and the right to leisure. In this analysis, the ability to participate in society and the ability to consume are convergent. The notion of the citizen as consumer first developed as part of the 1950s post war reconstruction when there was seen to be a need to lift the rate and scale of consumption.¹⁹ As the workplace and workplace identity became increasingly unstable, the role of consumption as an essential way to participate in

¹⁸ C. Lury, *Consumer Culture*. Oxford: Polity Press, 1996, p. 43.

¹⁹ S. Sheridan, *Who Was That Woman?* Sydney: UNSW Press, 2002.

society became more important. There exists a discourse of citizenship where citizens are defined primarily as consumers, with governments existing to service these 'customers'. While this dissertation's analysis of citizenship includes as a component the right to consume, and the relationship that this consumption has to an individual's social position, it also looks at broader definitions of rights, responsibilities and requirements.

While the traditional notion of citizenship works well for those areas where it is codified, increasingly the notion of citizenship is transforming from a noun to a verb. In this case citizenship refers to a mode of communication within society, both between the governed and government, but also between members of society. In this context, the citizen is seen as actively negotiating rival discourses as they 'do' citizenship. These rival discourses are increasingly being recognised by various Nations States: Australia recently repealed laws from 1948 designed to ensure that formal Australian citizenship remained exclusive to that nation, in as many cases as possible. Australian citizenship law²⁰ now allows for people to more easily become dual citizens, recognising that those who do so are negotiating their citizenship with rival sovereign states.²¹

Citizenship is increasingly a mode of communication. The ability for citizens to occupy their place in society has always been linked to their capacity to

20 *Australian Citizenship Act* 1948.

21 In 2002 The Australian Parliament repealed of section 17 of the *Australian Citizenship Act*. (In place since 1948), making it possible for people who became citizens of another country to not have to surrender their Australian passport and citizenship. Finland similarly also replaced its 1968 Citizenship Law in 2003 allowing dual citizenship for Finns.

communicate between themselves and with the state. The notion that citizens should enjoy the rights of free assembly and free speech is an expression of this function. This idea's history can be traced back to the Acropolis of Ancient Athens, and then later The Forum of Ancient Rome. In both these environments citizens could gather to communicate with each other, and with the state. In doing so they were accessing the prevailing level of communication technology at the time, in face-to-face discussion.

This understanding of the citizen, being activated by communication, changes over time as different technologies are adopted and become prevalent in society. The Constitution of the United States of America, adopted on 17 September 1787, gave the government responsibility for the Postal Service.²² 'Section 8: Congress shall have Power to.... establish post office and post roads.' Later in 1791, the Bill of Rights, which was the first amendment to that constitution, dealt specifically with the right of citizens to freedom of expression and assembly.

Article the third... Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech, or the press, or the right of people to peacefully assemble, and to petition the Government for a redress of grievances.²³

The Australian Constitution, adopted on 1 January 1901, illustrated the effect of the changes to the prevailing technology. Added to the postal service is the responsibility of the federal government for laws relating to telegraphs and telephone systems in Section 51 (V): Postal, telegraphic telephonic and other like services. Section 69

22 While the Greeks and Romans also used letters and writing, the city-state allowed for all the citizens to gather in one place, where as the United States represented a nation of continental proportion, and thus the letter became a necessary form of communication for democracy and citizenship in that environment.

23 *The Constitution of the United States of America*, 1787.

<http://www.ourdocuments.gov/doc.php?flash=true&doc=9&page=transcript> [accessed 9.5.2005].

goes on to deal with the handover of existing public services in this area from the colonies to the federal bureaucracy. As was the case in the United States with the postal service, this power was used by the government at the time to not just regulate, but also to provide and develop this service through the Postmaster General.

The level of access required depends on the level of technology available. If citizenship can be seen to include a 'right' to communicate with each other and the state, then what does this say about the role of non-citizens and the duty of the state to citizens? Those who 'miss out' on the ability to communicate are unable to participate in society as full citizens. In a society with supposed universal suffrage, this must be seen as a failure on the part of government. A representative democracy, especially one such as Australia that makes voting a responsibility not just a right for all its citizens, has a responsibility to inform voters to maintain an honest, open and accountable government. This availability is even more significant in the case of a Westminster system of ministerial responsibility as exists within Australia's federal and state governments.

Possession of a sufficiently developed digital self is a prerequisite for being considered a digital citizen. There is a level of literacy that is required to control and manipulation of that digital self, to use an individual's various digital identities, before one can be said to have been elevated out of the digital underclass. This level of literacy will change over time as the dominant applications in use on the Internet change. Just having a Hotmail account²⁴ does not automatically elevate an individual

²⁴ Hotmail accounts may well make up part of a digital citizen's digital identity, but at the same time they are the email access of the underclass, they have limited capacity to receive attachments, and

out of the digital underclass to become a digital citizen. It is the ability to use the Internet in a way that the dominant discourse accepts and codifies. The nature (and application) of this dominant discourse is not as definitive or precise as it might seem.

The Digital Citizen

Citizenship operates as both a noun and a verb, particularly as applied to the digital context. This transformation occurs due to the more complex nature of sovereignty, both in the increasingly globalised off screen world, but also and more markedly, on the screen where there are different digital sovereigns acting within, between, and outside the jurisdiction of the traditional analogue national sovereigns. As a noun, citizenship refers to the relationship between citizens and each other, and citizens and the state. It is the codification of the rights and responsibilities of citizens, and the requirements that must be met in order to be recognised as a citizen. In Ancient Greece this was clearly stated without much room for deviation or interpretation. There was clearly only one sovereign entity to which the citizens owed their allegiance, and the rights, responsibilities, and requirements of citizenship were clearly laid out in law.

However this simple conceptualisation of citizenship (and sovereignty) has been replaced by a variety of different and often competing understandings of digital citizenship. In this environment, as each individual citizen seeks to act as a ‘good

indicate the absence of a ‘real’ (credible or financed) email address of some type. They also provide no information about nation of origin or employment.

citizen' they have to actively interpret the discourses. This can lead to citizens acting in a way that when viewed through one understanding represents the correct and right course of action, whereas viewed through another can be seen to be engaged in deviant and even criminal behaviour, for example the downloading and distribution of pirated material. In this environment it is the active role of the individual digital citizen to 'do' citizenship, the word now a verb. Citizenship, the noun, is the grammar of society. If all societies were information societies, then the grammar of that information, its language and laws, are what defines the society. Citizenship the verb, then describes how an individual negotiates this.

In a pre-modern, pre-enlightenment context, the authority to maintain society (sovereignty) was exercised externally by the state. The public punishment of deviants and criminals from stocks in the market, to public hangings were used to reinforce both the social and political order. While the stocks gave way to prisons and hospitals, the use of public spectacle to punish threats to the political order, treason had a longer existence. As Michel Foucault noted,

The extreme point of penal justice under the Ancien Régime was the infinite segmentation of the body of the regicide: a manifestation of the strongest power over the body of the greatest criminal, whose total destruction made the crime explode into its truth.²⁵

The residue of this can still be found in the High Court of Australia, where Room Three has space set aside for a jury which may only be used for public trials of treason against the state.

²⁵ M. Foucault, *Discipline and Punish: The Birth of the Prison*. Ringwood, Victoria: Penguin Books Australia 1977, p. 227.

Foucault contrasted this external enforcement of the individual with the regulation of the integrated post-enlightenment self. Using the theoretical construction of the Panopticon by Jeremy Bentham,²⁶ as a site where everyone in society is potentially observed, Foucault explained how this formerly external control becomes internalised. The good citizen is monitored and their behaviour confirmed as such both by themselves and by those around them in society, just as that citizen monitors others.²⁷ Antonio Gramsci similarly theorised how control of society would move from political control supported by a physical military presence through to civil control, where the authority of the state is internalised by the members of society.²⁸

The digital citizen represents the digital self's connection to, and participation in, digital society. The digital self is fragmented into discrete digital identities. These identities can be difficult to observe and monitor, and they are not always easily connected to each other or the off screen self of the individual user. In this context any kind of physical sanction would be difficult to bring to bear off screen, a problem further complicated by the cross jurisdictional nature of the Invisible Empire. This then sets digital citizenship aside from what has gone before. No longer subject to the Panopticon, and out of reach of the rigid and public persecution of the state, the digital citizen is a construction of post-civil control.

²⁶ J. Bentham, *The Panopticon Writings*. Edited by M. Bozovic, London: Verso, 1995, pp. 29-95. <http://cartome.org/panopticon2.htm> [accessed 16.7.2005].

²⁷ M. Foucault, *Discipline and Punish: The Birth of the Prison*. Ringwood, Victoria: Penguin Books Australia 1977.

²⁸ A. Gramsci, 'State and Civil Society', *Selections from the Prison Notebooks*. New York: International Publishers, 1971.

The digital citizen is potentially subject to digital sovereignty, but unlike analogue sovereignty, this sovereignty is laid down by the often competing understandings of the laws of digital society. Rather than an absolute authority from which others are derived, different actors try to influence the discourse of digital sovereignty. As Foucault noted ‘It is in the discourse that power and knowledge are joined together.’²⁹ This discourse of digital sovereignty is then fluid and changing. Citizenship is interpreted and reinterpreted at each instance by the digital citizen. The interpretation of citizenship is an active and changing process, a verb rather than a noun. In this post-civil control, each digital sovereign will attempt to persuade the digital citizen that they are advocating the ‘right’ path. With limited recourse to observation and coercion, this is how control must be exercised. This discourse is then one of citizenship as each individual interprets their understanding. On the other hand, a discourse of sovereignty exists when an agent is trying to impose their understanding or spin of the discourse on others. In many cases an individual can be seen to engage with both modes of discourse simultaneously.³⁰

While those seeking to be good members of digital society will actively engage with the citizenship discourse of the Invisible Empire, there are those who do not fall within the bounds of digital citizenship. They are either actively excluded because they do not meet the requirements of citizenship, or they actively choose to stay outside the bounds of digital society.

²⁹ M. Foucault, *The History of Sexuality. Volume One: An Introduction*. Translated by Robert Hurley, London: Allen Lane 1978, p. 100.

³⁰ Digital Sovereignty forms the topic of analysis for Chapter Five.

Digital Deviants

Agent Smith: As you can see we have had our eye on you for some time now Mr. Anderson. It seems that you have been leading two lives. In one life you're Thomas A. Anderson program writer for a respectable software company, you have a social security number, you pay your taxes, and you..... help your landlady carry out her garbage. The other life is lived in computers where you go by the hacker alias Neo and are guilty of virtually every computer crime we have a law for. One of these lives has a future and one of them does not.³¹

Those who are not part of the discourses of digital citizenship are pivotal to the discussion of access deployed in this thesis. One of the key defining characteristics of citizenship has always been specifying those who are outside it. The non-citizen informs the configuration of the citizen. Off screen citizens experience a convergence between the underclass – those people who do not meet the requirements of citizenship – and the deviant, those who do not live up to their responsibilities as citizens. Individuals who are criminals or are disadvantaged, are often conflated ideologically. Within the Invisible Empire, on the screen, they are in contrast, they are divergent concepts, and this is significant.

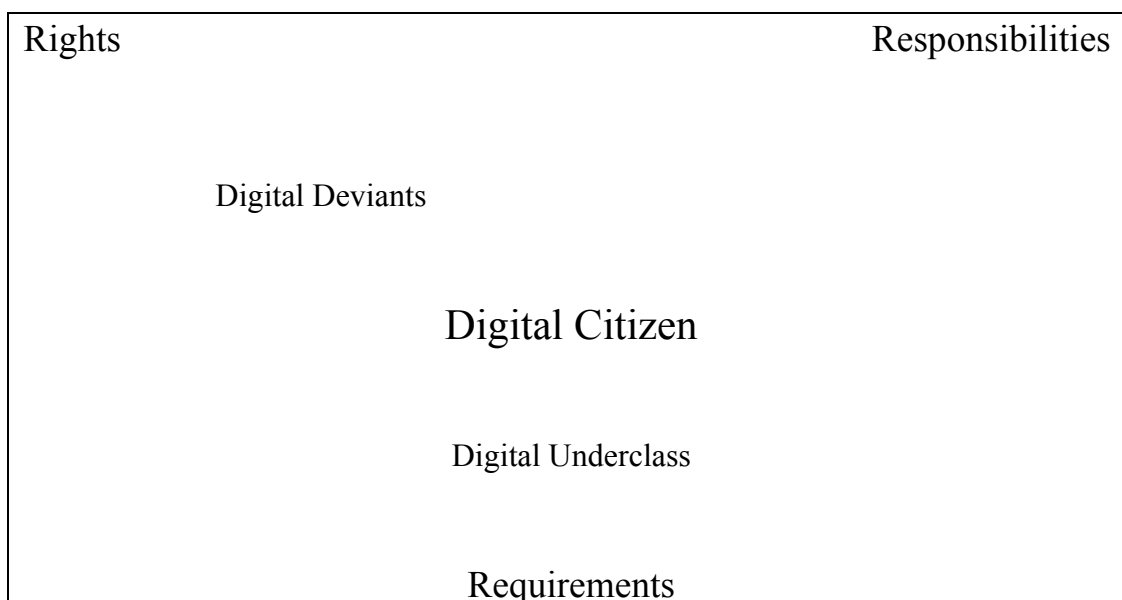


Figure 44
The Digital Citizen

³¹ *The Matrix*. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 1999.

Digital deviants are those who have met the requirements of digital citizenship and choose not to conform with their responsibilities as digital citizens. They break the laws of the digital world, threatening the digital self, digital property and the digital state. The deviant is not seen. Rather, they are experienced through different aspects of the digital self as individual digital identities come into contact with them. The digital underclass by contrast do not meet the requirements for digital citizenship and will not be experienced by or have their existence acknowledged by digital citizens.³² They do not exist for the digital citizen. If they cannot be experienced then it is much more difficult to mark differences. Class in a consumerist framework is read on appearance. Similarly, the digital underclass will in most cases have little or no experience of the area from which they have been excluded.

Digital deviants are those who have a sufficiently developed digital self to have met the requirements for digital citizenship, and yet do not then fulfil the responsibilities of that potential citizenship. Just as there are competing discourses of digital citizenship, there are corresponding different versions of the digital deviant. Following one discourse can, in some instances, necessarily make you a criminal in

the view of another. This notion is explored further in the discussion of



digital sovereignty. As a generalisation, digital deviants on the Internet have a level of hyper-literacy (certainly the ones that are any good at it do), as

they can manipulate their various digital identities so as not to be apprehended or suffer retribution for their actions. Off screen the deviant and the underclass are often

³² As is demonstrated by the *Declaration of the Independence of Cyberspace*. J. Barlow, *A Declaration of the Independence of Cyberspace*. <http://www.eff.org/~barlow/Declaration-Final.html> [accessed 26.8.2003].

perceived as the convergent, however the perception of the digital deviant on the Internet is a much more complex concept. The digital self on the Internet interacts and exists through its discrete and independent digital identities. So rather than speaking of the 'digital self' coming into contact with the digital deviant, the deviant is rather, encountered through different digital identities manifesting through different applications.

On the 23rd of September 2003 Joseph McNicol appeared in the Western Australian District Court. He was facing a civil suit from T3-Direct, an Internet marketing company. T3-Direct was claiming damages from Mr McNicol after he had posted their Internet address on the Web, where it was found by SPEWS (Spam Prevention Early Warning System). SPEWS is a group that gather the addresses of Spam companies that then allows this list to be used by organisations to block emails from those addresses. The case was eventually thrown out on the basis that there was no way to prove that Mr McNicol had contacted SPEWS directly. SPEWS themselves are an anonymous US based group, so taking legal action against them presumably was not an option for T3-Direct. The only way to get off one of their lists is to post a message to the net-abuse news group apologising and agreeing to not send Spam. T3-Direct had chosen instead to set up again at a new address, the costs associated with which were the cause of their action.³³ Another company, LaneChange.Net, who have found themselves on SPEWS list, have described them:

The SPEWS guys are a bunch of propeller-headed cowboys who think they have the spam thing all figured out. "Lets cut off all the ISP's IP address for

³³ K. Griggs, 'Aussie Gets Into Pickle With Spam', *Wired*. 11th June 2002.
<http://www.wired.com/news/politics/0,1283,53102,00.html> [accessed 5.8.2005].

any IP that's related to a domain name, and then cut off their suppliers and that should do it!" – Morons!³⁴

The boundaries of digital deviance and good citizenship are heavily patrolled. T3-Direct, SPEWS and Joseph McNicol would all argue that they were acting as a 'good digital citizen', albeit using some mutually exclusive interpretation of the discourse of citizenship.

In addition to those who may fall outside of various interpretations of citizenship, there are also those who choose not to engage in any notion of the responsibilities of citizenship: actively breaking the social norms and laws of the digital society. These people might be influenced by greed, and are prepared to steal from others over the Internet or actively pursue the place of the outsider or hacker that much of the early fiction of the Internet glorified. This history, may view these hackers as individuals following a particularly extreme discourse of the good digital citizen, a kind of romantic Ned Kelly of the network.

Image Removed

Figure 45
Cartoon by Matthew Diffie 29th May 2000
<http://www.cartoonbank.com/>
accessed 24.6.2005

³⁴ 'Spews is not a domain name filter', *LaneChange.Net*.
<http://www.lanechange.net/html/spews.shtml> [accessed 25.8.2003].

As with off screen crimes, crimes activated through the Internet can be divided into attacks on the person, on property and against the state. These crimes are transformed by a new context. There are also more minor breaches of social norms, or netiquette. These in themselves do not necessarily mark one as a digital criminal. For example when certain versions of the *Real Player* audio and video player were downloaded from the Internet, it automatically reset the computers web browsers home page to the Real Player site. Additionally, when the software was uninstalled, it would leave behind its 'spyware' on the computer, which would try and secretly gather the music play list from that computer to relay back to the company. Not criminal (perhaps), but certainly not good netiquette. There is a difference between being impolite, and stepping outside of society by committing a crime.

The earlier case study of the digital rape in LambdaMOO is an example, if somewhat dated, of a crime against the digital self delivered through the Internet. In contrast, when a criminal steals money through the Internet, often through some kind of credit card fraud, it is an attack on an area of the self that is shared by the off screen and digital self. Paedophiles that use Internet chat rooms to stalk victims – the targets of Operation Innocent Image by the FBI,³⁵ use the Internet (and their digital selves) to organise crimes against children. These are examples of crimes against the person.

By contrast, the design and release of harmful viruses and Internet worms is a crime against digital property. As are activities such as distributed denial of service attacks

³⁵ P. Ly, 'Girls teach teen cyber gab to FBI Agents', *The Washington Post* 4th June 2003.

that shut down Internet servers and Web sites, or the ‘theft’ of data where unauthorised copies of information are taken (generally the original will be left behind). A recent study released by the Internet security vendor Sophos found that an unprotected computer running Windows has a fifty percent chance of being hijacked within the first twelve minutes of being connected to the Internet.³⁶ On the 29th of August 2003 Derek Boon Leon became the first person in Australia to be charged with using a computer as a weapon, or more specifically with seven counts of causing unauthorised impairment of an electronic communication. It has been alleged that Mr Leon used his home computer to launch a denial of service attack on his former employer’s web site, an attack on their digital property. He had previously been dismissed as that company’s Webmaster. If found guilty, he could face a fine of \$13 200 Australian dollars, and up to two years in prison.³⁷ The analogue law in this case is being used to prosecute alleged crimes performed in the digital environment.

The final area of deviant activity is the attack on the sovereign: digital treason. In the world of competing notions of sovereignty that digital citizens inhabit this can be hard to determine, following one discourse often involves a certain level of ‘treason’ against another. However, there is a clear concern from many analogue sovereigns about threats to the state. The People’s Republic of China goes to great lengths to regulate and censor the Internet, to protect the perceived threat to the state that activity in that sphere might represent.³⁸ In Burma the penalty for ‘unauthorised use

36 R. LeMay, ‘The 12-Minute Windows heist’, *ZD Net Australia*. 1st July 2005.
<http://www.zdnet.com.au/news/security/0,2000061744,39200021,00.htm> [accessed 1.7.2005].

37 S. Butcher, ‘Computer sabotage charge a first for Australia’, *The Age*. 29th August 2003.

38 M. Geist, ‘Face to Face with the Great Firewall of China’, *Ottawa Citizen*. 5th May 2005.
<http://www.canada.com/ottawa/ottawacitizen/technology/story.html?id=6aabb570-9f4d-491c-b915-a5cbb1842292> [accessed 20.6.2005].

of a modem' is up to 15 years in prison.³⁹ The United States, following the 11 September terrorist attacks, has also passed a number of laws that aim to minimise the threat to the state posed by deviants on the Internet.⁴⁰



Figure 46
Sherman Austin
<http://www.raisethefist.com/>
[accessed 15.5.2005]

On 4th August 2003 Sherman Austin – the Web master of RaisetheFist.com – was sentenced to one year's jail and three years' supervised release for content that was posted on his anti-government web site. His site had links to another site that gave information about making explosives. Mr Austin had originally planned to fight the charges, but with the potential for a twenty year jail sentence under new anti-terrorism laws in the United States, he agreed to a plea bargain of four months in jail. It was then overruled by the judge in the case who sentenced him to one year in jail, with a three year probation period during which amongst other restrictions he cannot use a computer without his parole officer's permission, or associate with any person

O. Ruffin, 'Great firewall of China: A gang of Internet police states is emerging from the developing world say Oxblood Ruffin. And they're using Western Technology', *New Scientist*. 9th November 2002, volume 176, issue 2368.

39 D. Holmes, *eGov: Ebusiness Strategies for Government*. London: Nicholas Brearley Publishing, 2001, p. 253.

40 O. S. Kerr, 'Internet Surveillance Law After the USA Patriot Act: The Big Brother That Isn't' . *Northwestern University Law Review*. 2003, Volume. 97.

or group who wants to change the United States government in any way. Mr Austin has become a minor celebrity as a result of his sentence. The implications for the government's involvement in answering this perceived threat to the state were considerable. Once again, analogue law enforcement is brought to bear this time on alleged digital treason. That Mr Sherman went to jail for linking his site to another that contained contraband information, with presumably safely anonymous owners illustrates some of the limitations of the jurisdiction of laws.

Despite the Chinese government's concerns about Internet use by its citizens, or perhaps a driver of government attention, is the heavy use of the Internet and the World Wide Web in particular, by supporters of independence for Tibet from China. A search for the word Tibet on any of the major search engines reveals the number one site returned as The Tibet Government in Exile. The first pro-China web site does not appear until the fourth or fifth page of results.⁴¹ In a more overt, or at least violent case of trying to overthrow the government, the rebels in Chechnya have made extensive use of the Internet to provide information and propaganda on their separatist war against the Russian Federation. Their main website <http://www.amina.com/> provides their views on the ongoing conflict in that region.

A computer virus that arrives via an email reflects a particular digital identity that is a projection of the 'deviant'. The recent prosecution of the underage developer of the Sasser Internet worm shows that in some cases this identity is not as far removed

⁴¹ Yahoo, Google and AltaVista, 5th September 2003. The official government in exile web site is <http://www.tibet.com/>.

from the off screen identity as the hacker might wish.⁴² Similarly, when a digital deviant hacks into a web site and defaces it, both by the deviant and subsequent viewer who see their work, will be manifesting their digital identities associated with the World Wide Web and those applications used to access it. This will influence how the deviant is perceived. In another example of the digital deviant being represented through different discrete digital identities, my computer has a static IP address, and as a result is the target of numerous attempts to install software that would allow distant users (digital deviants) to take control of it. Normally deviants would use the computer to run a denial of service attack, but the machine could also be used as a Spam mail resender. Alternately the hacker's objective might be to access the content stored on the computer. When these attacks occur, my firewall software stops them, and logs the IP address from which the attack came. As shown in figure 47, a tracking device can be used to find where that computer is located, although those making the attack usually mask this. Thus the digital deviant 'appears' to my digital identity, in this case projected through my firewall software, as a series of numbers that make up an IP address, and a pop-up warning from my security software on my computer screen. Their identity and location in space is (often) projected through these attempted attacks. Without the firewall, the impact on some of my various digital identities could be considerably more significant.

42 J. Krim, 'German Teen Avoids jail Time for Sasser Worm', *Washington Post*, 9th July 2005. <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/08/AR2005070801802.html> [accessed 16.7.2005].



Figure 47
Norton Internet Security

This relative invisibility of the ‘whole’ digital deviant as it is interfaced through its discrete digital identities, combined with a hyper-literacy that lets them have greater control than an average digital citizen, makes the image of the deviant in some ways scarier, or at least more mysterious than off screen. The deviants are the faceless boogiemens of the World Wide Web.⁴³

⁴³ H. Meredith, ‘Sniffing out the cyber Hannibals’, *The Age*. 12th October 2004. <http://www.theage.com.au/articles/2004/10/11/1097406487106.html?from=storylhs> [accessed 7.6.2005].

Image Removed

Figure 48

Cartoon by Harley Schwadron

<http://www.cartoonstock.com/search.asp?x=a&keyword=Parking+only+government&Category=Not+Selected&Boolean=Or&Artist=Not+Selected&submit=Search>

[accessed 12.7.2005]

While the digital deviant fails to live up to their responsibilities as a digital citizen, the digital underclass does not meet the requirements for digital citizenship. Their digital selves are either too rudimentary or, more often, non-existent. In order to have the potential to become a digital citizen an individual needs to develop a sufficiently sophisticated digital self. To do this at the very least requires a sufficient level of access to the Internet. However this will involve having access to a telecommunications network,⁴⁴ and possibly a credit card, not to mention the

44 People still often quote Greg LeVert's assertion at the Telecom '94 conference that 'half the worlds population, an astounding three billion people, has never made a phone call' as reported in the *Toronto Sun* 13th October 1994. Clay Shirky notes since that time the number of fixed phone lines has grown by 50%, and there has been an enormous growth in the number of mobile phones. Shirky estimates that there is still about one third of the world's population that has not made a phone call (this is still shrinking).

C. Sharkey, 'Half the World' *Shirky.Com* http://shirky.com/writings/half_the_world.html [accessed 11.8.2003].

requisite ability to read, write and ideally to type, in most cases in English. They lack the access to the sufficient levels of hardware, software, wetware and cultware to overcome the access event horizon. Perhaps race is a better metaphor, with this group not so much an underclass, but rather an under-race, the Epsilons of the digital brave new world – the victims of a digital apartheid where those being most disadvantaged do not even know or experience what they are being denied. There is no need to worry about them breaking out, because they cannot see the world they would escape to. No one has to ‘keep them down’ because they do not know what they are missing out on. The digital underclass is without a voice in the digital environment. Without consciousness of their disadvantage, they are in effect, rendered as digital subaltern. The digital underclass cannot see or interact with the digital citizens. The digital citizen in turn has very little or no interaction with the underclass in cyberspace.

The invisible or non-existent state of the digital underclass in cyberspace is critical to an analysis and understanding of the consequences and proliferation of the Internet. If the underclass don’t exist virtually, then there is no danger that they will develop any sort of rights, particularly rights that might enable access to the requirements of citizenship. Thus they are locked out of any interaction with the discourse of digital citizenship. While there is a non-citizen underclass off screen, particularly in a western style democracy with supposed universal suffrage, there is a perception that there is a role for government, to assist these individuals to reach full citizenship. It is seen as a basic right to meet all the requirements of citizenship, and while this may not be the case for deviants in a society, taking into account the convergence

between these groups, it is still seen as a failure by the analogue sovereign state that an underclass exists.

In Australia, Indigenous people are eligible to vote, albeit relatively recently.⁴⁵ However as a group they still do not have decent access to health care, education and telecommunications, when compared to the population at large.⁴⁶ In this case, the right to vote is almost irrelevant, leading to a state where whole constituencies can be lead to believe they are enfranchised members of society, yet never have an actual effect on the political process, or impact on their own well being in society. To be eligible for an Australian passport is not enough to be considered a full citizen of the country.

Once an analogue sovereign starts interfacing their citizenry through both the analogue self and on the screen, then they develop a responsibility to treat all citizens as equals, and facilitate the development of the digital self in all their citizens. If a government utilises the Internet to facilitate communication between citizens, and between the citizens and the state, then the Internet becomes a mode of communication that the state has a responsibility to make available to all members of their society, in order to enable them to participate as full citizens of that society. If they fail to do this, then those left behind will fall further into the abyss of off screen underclass, as they become disenfranchised non-citizens.

45 The 1967 referendum that gave Aboriginal people the right to vote federally in Australia, formally brought Western Australia and Queensland in line with the rest of the nation. South Australia gave both its Aboriginal citizens and women the right to vote in 1894.

46 Steering Committee for the review of Government Service Provision, *Overcoming Indigenous Disadvantage: Key Indicators 2005*. Melbourne: Commonwealth of Australia, July 2005. <http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2005/keyindicators2005.pdf> [accessed 2.8.2005].

While members of the digital underclass have the potential to become digital citizens, there are some people on earth for whom digital citizenship is a lot more accessible in terms of economic factors, infrastructure and literacy. Generally speaking, access will be closer for Australians than in Africans, although not in all instances. The digital underclass also represents the pool of potential digital citizens that, should they join the network, would enhance the value of the network to all users, within the limits of its network utility. This might also lead to a reduction in the power, or at least advantage that digital citizenship gives those who have it over those who do not. While the underclass exists without the requirement to become a full citizen has been a given since the idea of citizenship was first articulated, the digital underclass, and their invisibility to, and complete absence from, the digital society is a new and disturbing trend. That there exists a digital underclass, which is denied the rights of digital citizenship is wrong. It will damage Australian society and democracy if it is perpetuated. Spivak wrote of the subaltern, noting that ‘if you are poor black and female you get it three ways’.⁴⁷ For the digital subaltern these markings are absent, yet these groups would seem to conflate with those who already miss out on access to telecommunications in Australia, as illustrated in Chapter One.

This chapter opened with the example from the ‘rape in cyberspace’.⁴⁸ While it is appropriate for raising some of the questions that this chapter addresses, ideologies and arguments quickly become more complex once you start to deal with the much larger, macro space of the Internet. A MOO was a relatively closed environment, a

⁴⁷ G. C. Spivak, ‘Can the Subaltern Speak’, in C. Nelson & L. Grossberg (ed), *Marxism and the Interpretation of Culture*. London: Macmillan Education, 1988.

⁴⁸ J. Dibbell, ‘A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society’, *The Village Voice*. 23rd December 1993.

finite world, where everyone inside had agreed to the rules (or more precisely could be made to conform). There were individuals in positions of authority who could exercise their sovereign power over the virtual world and its inhabitants.⁴⁹ The digital identities of people on LambdaMOO conformed to a similar template, and were relatively concrete and related to the individual of whom they were a projection. The wider Internet does not recreate this environment. The Internet is not a finite easily defined space. Identity and digital projection of the self is not uniform or homogeneous. To the extent that it is possible to discuss and locate those in power, or those who are able to exercise sovereign power, there is no consensus amongst the rival discourses of digital citizenship as to whom this could, or indeed should, be.

While it is clear that governments in general, and Australian governments in particular have not at this point found it necessary to ensure that all citizens have access to the Internet sufficient for them to be able to exercise a sense of their digital citizenship, there has for many years been a broad acceptance that access to telecommunications in the form of a telephone service plays an essential role in Australian citizenship. To this end, the federal government has maintained the Universal Service Obligation for telephony in Australia, stipulating the requirements for both private landline telephones and access to a public telephone network. The development and maintenance of this guarantee serves as a significant illustration of how the government activates and actualises this responsibility and how this might in future begin to apply to the Internet.

⁴⁹ The sovereign power of wizards, who were not tempered by a constitution, and were dealing with a weak, digital civil society in LambdaMOO were able to exercise near absolute power, as could be seen by the summary 'execution' of Mr_Bungle.

The next chapter examines the mirror of digital citizenship, digital sovereignty. How the discourse of citizenship is constructed and contested by digital sovereigns. The focus of this dissertation in Part III will then turn to the implications of the Invisible Empire as its influence stretches off screen and creates its own colonial relations between digital citizens at the core and the digital subaltern at the periphery.

Chapter 5

Digital Sovereignty

Image Removed

Image Removed

Image Removed

Image Removed

Image Removed

Figure 49
Cartoons by Garry Trudeau, 21st – 25th January 2003
<http://www.doonesbury.com/>
[accessed 25.1.2003]

The Internet inhabits a space that reveals differences from the ideologies encircling the twentieth century Nation State. It exists outside the mechanism in which sovereignty has been held, perpetuated and exercised. The early adapters who first established the grammar of the Internet explicitly rejected the notion of sovereignty, preferring to establish the grammar of a civil society free of the threat of violence that the state represented. However civil society requires violence – or the potential threat of state-sanctioned violence – as a protective mechanism. As the Internet moved from primarily a place of social capital, envisaged by these early adapters, and instead through the sway of capitalism, became home also to private capital, this initial vision of civil society began to fracture. This chapter examines the resulting complex and fluid nature of sovereignty as it has evolved in a digitised environment.

In Part I of this thesis, the foundations of the Invisible Empire were probed and investigated. Up until this point in Part II, the emphasis has been the examination of the individual on the screen. How the online community is enabled through a shared construction of digital citizenship. This chapter introduced some of the implications for those who fall outside of digital citizenship, those unable to negotiate the gateways of Empire and project an identity on the screen. This chapter maintains attention on the on screen digital environment, looking at how the political environment inhabited by the digital citizen manifests and how it came to be. As with digital citizenship, this investigation requires an understanding of how sovereignty has developed over time, how authority has been determined and exercised. This journey will track discourses of sovereignty through Europe, determining authority, from to God and the Catholic Church, and then moving to the

secular control of separate Nation States. This history then illuminates the fragmented and fluid formation of Digital Sovereignty. This chapter is a necessary connector, leading into the third part of this thesis.

The History of the Sovereign: God, Church, and Nation State.



Figure 50
The Coronation of HM Queen Elizabeth II, 2nd June 1953
http://www.debretts.co.uk/royal_connections/js_international_library.html
[accessed 24.6.2005]

To contextualize and frame the role of the digital sovereign, it is important to track the metaphor through its analogue trajectory. History, at its most simple and undergraduate, relies on a cycle of continuity and change. By investigating the movements and relationships *between* the analogue and the digital, a more complex theory of negotiation, ambivalence and malleability can be established. The term evolved originally from the Latin *superanus*, with *super* meaning above. The nature

of sovereignty in an analogue environment is varied, and has changed much over time. This analysis focuses on the history of sovereignty through Europe, and the changing nature of the sovereign through its relationship to space, time and identity. This history forms the basis for the understanding of the concept within Australia, and across the Internet.

The Crown: the Sovereign Identity

The crown, as a representation of the authority of the ruler, is the traditional symbol of the sovereign, passing from one monarch to their successor. This rule was based on an authority of religious significance, whether it be the god-king pharaohs of ancient Egypt where the ruler themselves were considered to be divine, or the King of the grail quest in Arthurian tradition where the health of the King is analogous to the health of the land. Within the history that informs the Westminster system of government, this is manifest in the doctrine of the Divine Right of Kings. The greatest exponent of this ideology was King James I of England (1566-1625). This doctrine ruled that certain monarchs (although interestingly not all), were set in place by the will of God, and therefore their rule was part of a divine order, and could not be questioned. King James was the first King of the House of Stuart taking on this role after Queen Elizabeth I died with no child, thus ending the reign of the house of Tudor. The House of Tudor itself was formed by the marriage of King Henry VII and Elizabeth of York that ended the thirty years of the War of the Roses, where the houses of York and Lancaster contested the crown. During this time the sovereignty of the Kingdom was in question and the war was fought largely by competing noble factions. This previous period of instability informed King James's devotion to this doctrine.



Figure 51

The Tudor Rose

http://en.wikipedia.org/wiki/Tudor_rose

[accessed 12.6.2005]

The Tudor Rose depicted the unification of the houses of York and Lancaster with the ascension to the English throne of Henry Tudor

The doctrine derives its foundation from the Great War in heaven between God's armies, lead by the Archangel Michael, and Lucifer and his followers. Lucifer had questioned God's order and challenged the throne in heaven, for this he was cast into the pits of hell for eternity, stating famously in Milton's *Paradise Lost* 'Better to Reign in Hell than serve in Heav'n'.¹ The Divine Right of Kings extrapolates this precedent so that to challenge the King is to challenge God. Those who commit treason are in fact analogous to Satan. St Paul in his letter to the Romans outlined this position in *Romans 13*:

Everyone must submit himself to the governing authorities, for there is no authority except that which God has established. The authorities that exist have been established by God. Consequently, he who rebels against the authority is rebelling against what God has instituted, and those who do so will bring judgment on themselves.²

¹ J. Milton, *Paradise Lost*. London: Penguin Books, 2000, p. 9.
<http://www.literature.org/authors/milton-john/paradise-lost/chapter-01.html> [accessed 16.3.2004].
² *Romans 13 1:3* <http://bible.gospelcom.net/cgi-bin/bible?language=english&passage=Romans+13&version=NIV> [accessed 7.6.2004].

In Dante's *Divine Comedy*, the 9th and lowest layer of hell, Cocytus, is reserved for traitors and oath breakers. Lucifer, the first and greatest traitor, sits frozen in ice at its centre.³

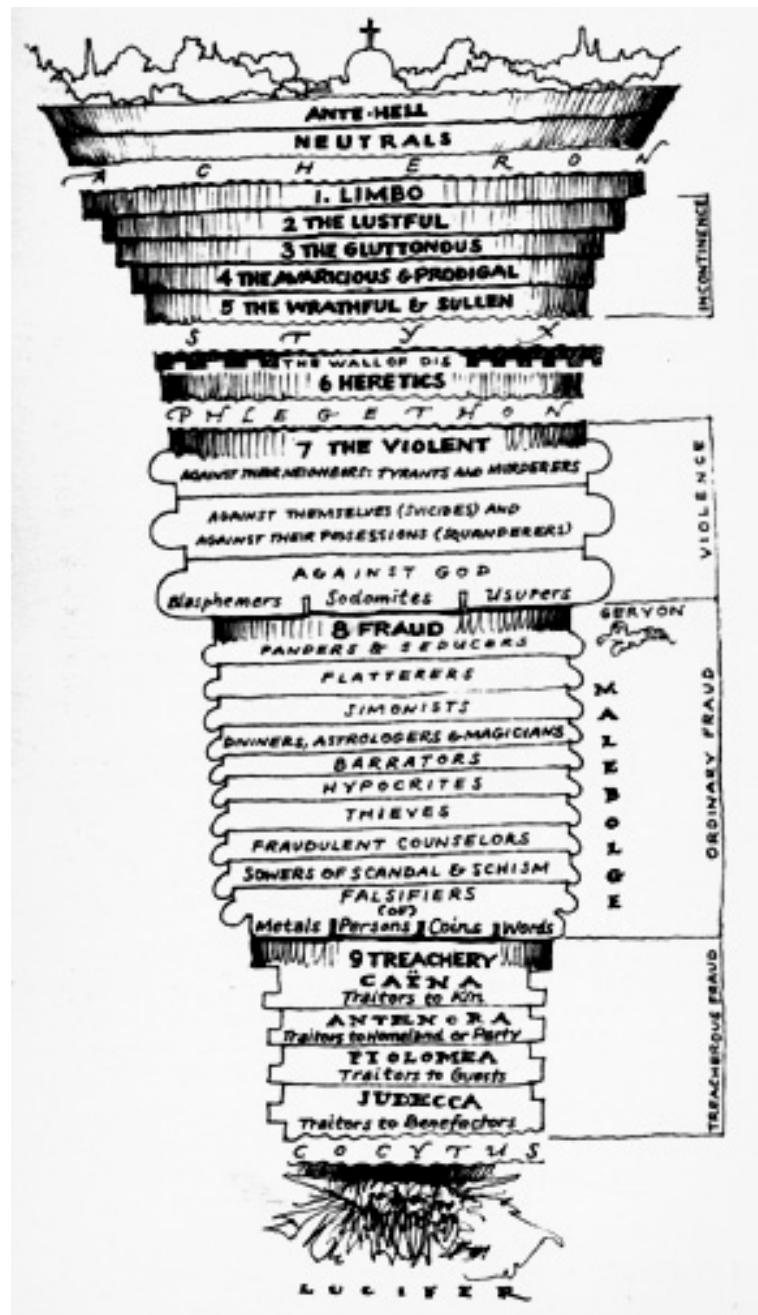


Figure 52
Dante's Hell

<http://www.angelfire.com/ak/Nyquil/Dante/images/hell.jpg>

[accessed 15.3.2004]

³ D. Alighieri, *The Divine Comedy of Dante Alighieri*. London: Oxford University Press, 1921.
http://www.everypoet.com/archive/poetry/dante/dante_contents.htm [accessed 21.6.2004].

The residue of this ideology is found in the preamble to the Australian Constitution, where God and *then* the Crown are both acknowledged as forces ‘above’ the constitution.

Whereas the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, **humbly relying on the blessing of Almighty God**, have agreed to unite in one indissoluble Federal Commonwealth **under the Crown of the United Kingdom of Great Britain and Ireland**, and **under the Constitution** hereby established: ⁴

God legitimises the crown and that power is manifest in the sovereign, who agrees to be bound by this constitution. The constitution then embodies the institutionalised potential violence of the state, to maintain order and enforce laws, and then refers its authority back to the crown, where this monopoly on legitimate violence is resident.



Figure 53
The Australian Army Rising Sun Badge
<http://www.army.gov.au/>
[accessed 24.6.2005]

The ‘Rising Sun’ badge of the Australian Army shows the rising sun in front of the crown it defends. In 1969 the badge was changed and the crown replaced with the Federation Star representing the states of Australia, however, perhaps predicting the prominence of monarchism under the Howard Government, it reverted to the crown in 1991, on the 75th anniversary of the landings at Gallipoli. Strangely recalling an event where so many lives were futilely lost in service of the absent crown, the King of England, by Australian citizens.

⁴ *Commonwealth of Australia Constitution Act 1900*
<http://www.aph.gov.au/senate/general/constitution/preamble.htm> [accessed 15.3.2004].

Thomas Hobbes provided a critique of the doctrine of the Divine Right of Kings in *Leviathan*.⁵ In this work Hobbes outlines the argument that the sovereign exists, and is legitimated, by virtue of their ability to enforce their laws and will. The sovereign has a monopoly on the legitimate use of violence so as to create order and save their subjects from the state of nature, which he famously described as being one where:

Whatsoever therefore is consequent to a time of war, where every man is enemy to every man, the same consequent to the time wherein men live without other security than what their own strength and their own invention shall furnish them withal. In such condition there is no place for industry, because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.⁶

For Hobbes, any form of divine ordination was immaterial, a social contract of absolute obedience between ruled and ruler was required to generate the political order necessary to avoid the state of nature. The requirement to be the sovereign was met by the ability to enforce any laws decreed.

⁵ T. Hobbes, *Leviathan, Or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*. New York: Collier Books, 1962. <http://oregonstate.edu/instruct/phl302/texts/hobbes/leviathan-contents.html> [accessed 16.3.2004].

⁶ T. Hobbes, *Leviathan, Or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*. New York: Collier Books, New York 1962, p. 100. <http://oregonstate.edu/instruct/phl302/texts/hobbes/leviathan-c.html#CHAPTERXIII> [accessed 16.3.2004].

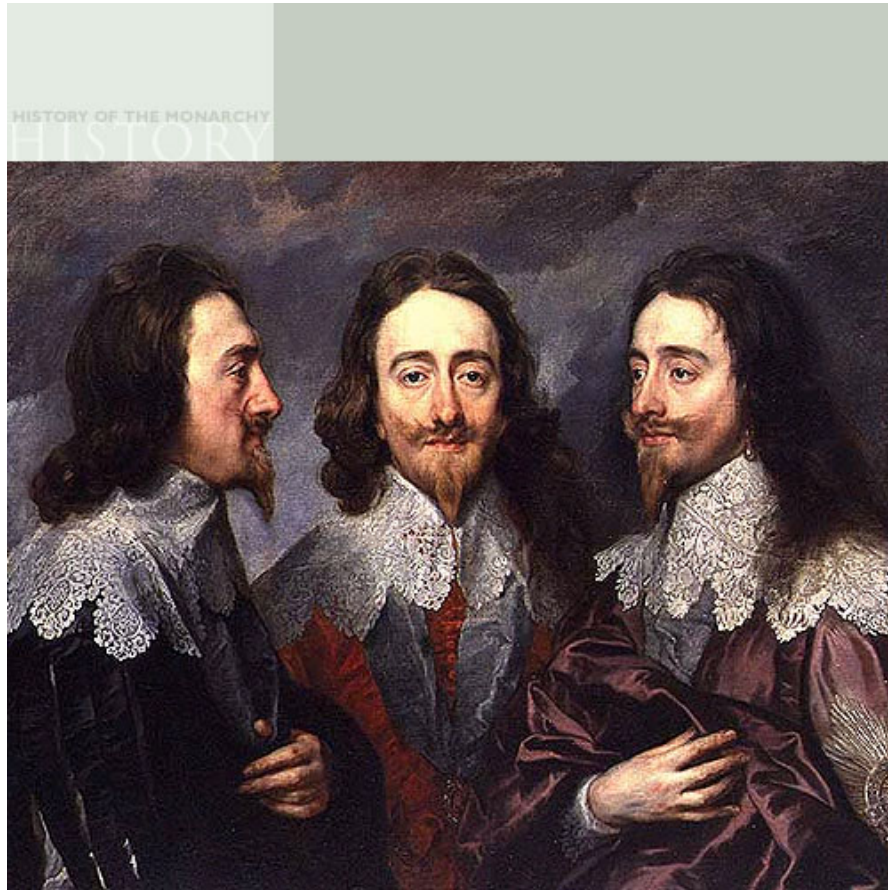


Figure 54
Charles I, King of England, Scotland and Ireland
Painting by Sir Anthony Van Dyck
<http://www.royal.gov.uk/output/Page76.asp>
[accessed 28.4.2004]

Leviathan was published in 1651, two years after the execution of Charles I (1600-1649), the son and heir of James I, after a rebellion against the crown lead by Oliver Cromwell.⁷ It would seem that King Charles had relied on his divine right over his ability to enforce his will, and that he was either incorrect in his assumptions, or was let down by God.⁸ As Hobbes noted, ‘covenants without the sword, are but words, and of no strength to secure a man at all.’⁹ Legal positivism maintains that it is a

⁷ This man was famous for, amongst other things, actually cancelling Christmas in 1645.

⁸ Milton’s Epic poem *Paradise Lost* uses the War in Heaven as a metaphor for this rebellion in England with Lucifer playing the part of Cromwell.

⁹ T. Hobbes, *Leviathan, Or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*. New York: Collier Books, 1962, p. 129.
<http://oregonstate.edu/instruct/phl302/texts/hobbes/leviathan-contents.html> [accessed 16.3.2004].

crime to attempt rebellion, or to try to overthrow the state, unless the attempt is successful, in which case it is legitimate and lawful. Cromwell's rebellion seems to vindicate this approach, and that of Hobbes over the doctrine of the Divine Right of Kings.

A second place in Judeo-Christian religious history where God's will was famously transgressed is the Garden of Eden, where Adam, against the instruction of God takes a bite from the fruit of the tree of knowledge, and thus loses his innocence. This moment is captured by the logo of Apple Computer Inc that represents the forbidden fruit, the first bite missing.



Figure 55
Apple Computer Inc. logo.

Within this story, the position of blame for the transgression is ambiguous. It seems that Adam was convinced to take the first bite by Eve, who was in turn influenced by the advice of the serpent. In any case all three suffered God's wrath, with Adam and

Eve exiled from The Garden, and the snake condemned to crawl on the ground. While there is an obvious link between the crown and religion embodied in the Divine Right of Kings, the interpretation, and distribution of information, and particularly the interpretation of the Word (and Will) of God, was also central to the control and legitimisation of sovereignty at this pre-reformation period in European history.

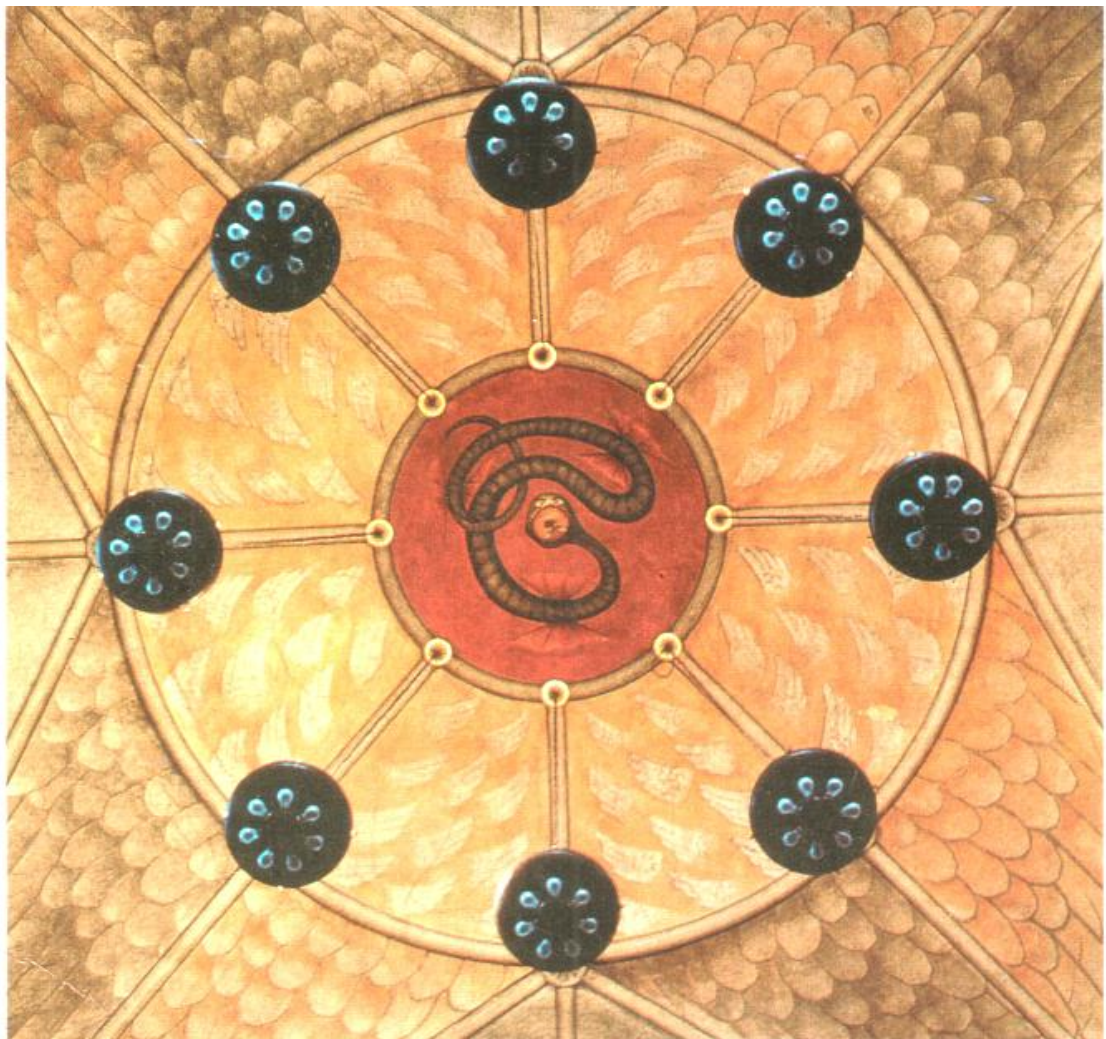


Figure 56
The Snake and Angels Wings by **Hugo Simberg**, Tampere Cathedral
Photo by Juhani Riekkola

This painting *The Snake and Angels Wings* is from the centre of roof of the Tampere Cathedral in Finland. In Satan's mouth is the forbidden fruit from the tree in the Garden of Eden, he, and his implied temptation, are kept from the congregation below by the massed wings of angels.

In this context, the Bible is a text of sovereignty. Who ever controlled the reading and production of this text effectively was able to control the interpretation of God's will, and thus control over sovereigns in terms of both who they were and how their power was interpreted and constrained. The Bible was originally produced in the Latin language by St Jerome at the request of Pope Damasus I in 382 AD. The translation was completed in 405 AD. as *The Vulgate* bible, and became the official bible of the Catholic Church. The contents of the Bible (in Hebrew) were determined at the Synod of Hippo in 393 AD., and then confirmed at the Synod of Carthage in 397AD.

In 1392, John Wycliffe's translation of this version of the Bible into English was completed. He was, as a result, expelled from his teaching post at Oxford University, his works condemned at the Council of Florence in 1415, and his followers persecuted. In 1408 translations of the Bible to the vernacular were forbidden by the Council of Oxford. Forty-four years after his death in 1428 and the behest of the church Wycliffe's body was disinterred and burned, and the ashes scattered in the river Swift. What had been his sin?



Figure 57
The Trial of Wycliffe, Manchester Town Hall, by Ford Maddox
<http://www.wycliffe.org/history/JWycliff.htm>
[accessed 13.3.2004]

In Europe at this time, the Catholic Church controlled the storage and flow of information through its dominance of literacy of Latin. The church controlled the production of the Bible, each copy hand written, and the reading of the text was limited to those who were able to read in Latin. Wycliffe's translation represented a threat to this control. In 1454 Johannes Gutenberg produced approximately 180 copies of the Bible (in Latin) using his revolutionary new printing press, 48 copies still survive today and a scanned copy can be accessed online at <http://prodigi.bl.uk/gutenbg/default.asp>. While this process took the production of texts out of the hands of the religious authorities, the content was still strictly regulated by the church, as was the readership restricted to the Latin-literate elite of Europe.

The significance that church authorities placed on this control can be seen in the later reaction to William Tyndale. Tyndale produced an English translation of the Bible in 1525 from original Hebrew and Greek texts, rather than translating *The Vulgate* as Wycliffe had done. He was put to death by being strangled and burned outside Brussels in 1536 for this transgression.



Figure 58

Tyndale's Bible¹⁰

<http://www.bl.uk/collections/treasures/tyndale.html>

[accessed 16.3.2004]

¹⁰ As can be seen from this scanned image of one of the surviving copies of Tyndale's work, his translation begins, 'In the beginning was that word and that word was with God and God was that word'. The importance and the power of language was not lost on Tyndale.

This control of the text by the Catholic Church began to weaken. In 1534, Luther translated the Bible to German, while still subject to persecution, he died of natural causes in 1546. By 1539 the Great Bible, or Cromwell's Bible became the first English translation to be authorised for public use in churches.

Latin was the transnational language of the European intelligentsia. While it was, at the time, a dead language, it was the vocabulary and syntax of the church and used to uphold its power as a supernational sovereign. Benedict Anderson, in his famous work *Imagined Communities* notes that Latin was not unique in this respect illustrating the similar role played by classical Arabic in relation to the sacred text of the Koran, and the place of Chinese characters in also transcending spoken language. In each case, the aim is to create a community out of this ability to communicate through a language of characters, rather than sounds. As Anderson notes:

In fact the deader the written language – the further it was from speech – the better: In principle everyone had access to the pure world of signs.¹¹

English is the transnational language of the Internet, and also the primary language of the United States. Language has frequently been used by the core to control the periphery. Swedish was the language of the Swedish Kingdom, and thus the language of academia and commerce in peripheral Finland, although the majority of the population spoke Finnish, similarly Russian was the language of the civil service and military in the Soviet Union, despite being a native tongue only in Russia. The British Empire was founded on both the lanes of the sea, and on the English

¹¹ B. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, Revised Edition. London & New York: Verso, 1991, p. 13.

Language. The language of American English can be seen now to occupy a similar place now along with the lanes of information.

By the Sixteenth Century the Roman Catholic Church's control of the text of the Bible, and its interpretation, began to collapse in the face of the rival discourse presented by the reformist church. The Bible's translation into secular language also reduced the importance of the place of the Latin speaking elite, who lost their monopoly on the ability to access the text directly. This elite, previously having communicated in Latin, were relatively mobile across Europe, creating a pan European intelligentsia that communicated in the same language (albeit only with each other). The rise of the use of secular language in the production of texts now bound these individuals more tightly within their country of origin. The printing press allowed for more efficient production of any Biblical translation thus making it viable to produce a translation, and distribute it in one language, or to just one country. Victor Hugo astutely noted these changes in *The Hunchback of Notre Dame*:

The archdeacon gazed at the gigantic edifice for some time in silence, then extending his right hand, with a sigh, towards the printed book which lay open on the table, and his left towards Notre-Dame, and turning a sad glance from the book to the church, – “Alas,” he said, “this will kill that.”¹²

There were between three and six thousand copies of Tyndale's contraband text, an unlikely achievement had each copy been required to be written out by hand.¹³ While

¹² V. Hugo, *The Hunchback of Notre Dame*. Paris, 1831.

http://www.online-literature.com/view.php/hunchback_notre_dame/23?term=printed%20book [accessed 14.3.2005]. The book *Web Theory: An Introduction*, by R. Burnet & P. D. Marshall uses a very similar passage as an introduction to one of its chapters. Significantly in the context of this analysis we have chosen different translations of the original French by Hugo, and thus present different versions of what is the same passage. R. Burnet & P. D. Marshall *Web Theory: An Introduction*. Routledge, London & New York 2003, p. 152.

¹³ The copying of these bibles by hand would have been made even more difficult by their relatively small size.

the distribution and authorisation of the Bible's text had moved from the exclusive hand of one church, the value in controlling this text, and its effect on sovereignty was still significant. In 1604 King James I commissioned a new English translation of the Bible, stating:

Could never yet see a Bible well translated in English; but I think that, of all, that of Geneva is the worst. I wish some special pains were taken for an uniform translation, which should be done by the best learned men in both Universities, then reviewed by the Bishops, presented to the Privy Council, lastly ratified by the Royal authority, to be read in the whole Church, and none other.¹⁴

The Geneva Bible was originally translated by William Wittingham, the brother in law of John Calvin.¹⁵ James I disliked both its Calvinist tendencies, and what were seen as the seditious marginal notes on some political texts, which conflicted with his doctrine of the Divine Right of Kings specifically two passages, Exodus 1:9 where a margin note stated that it was right in some circumstances to disobey the King and 2 Chronicles 15:16, which had notes to the effect that the King was not infallible.¹⁶ While control of the text as a purely Latin script was no longer an issue at this time the control of the text, now in the secular local language, is still clearly understood as important.¹⁷ In King James' statement, the importance of using the Bible, as decreed by 'royal authority' to enhance to sovereign power of that authority, and the casting of aspersions on other attempts to do the same, particularly those that presented a

14 L. M. Vance, *A Brief History of English Bible Translations*. USA: Vance Publications 1993. <http://www.av1611.org/kjv/kjvhist.html> [accessed 15.3.2004].

15 Wittingham was one of a number of Protestants driven from England who took refuge in Geneva during the reign of Mary I (1516-1558), some fifty years before the reign of James I. The differing interpretations of this Queen's legacy can still be found on the Internet between Protestant and Catholic-affiliated sites. Good examples being G. DeMar, 'The Geneva Bible: The Forgotten Translation', <http://www.reformed.org/documents/geneva/Geneva.html> [accessed 16.3.2004] for the Protestant interpretation and H. Thurston, 'Mary Tudor', <http://www.newadvent.org/cathen/09766a.htm> [accessed 16.3.2004] for the Catholic.

16 G. DeMar, 'The Geneva Bible: The Forgotten Translation', <http://www.reformed.org/documents/geneva/Geneva.html> [accessed 16.3.2004].

17 Interestingly much of this translation, the *King James Bible*, was based on the earlier *Tyndale Bible* (for which he was seventy years earlier, put to death), meaning that much of the syntax used was already dated at the time of publication.

discourse that might undermine the authority of the local sovereign, is clearly evident.

The advent of rival discourses of religion, and the Bible being translated into secular language created a number of strains on the European ruling order, resulting in wars between rival sovereigns, supporting rival interpretations of the 'Word of God'. Following the Thirty Year War 1618-1648 over this issue (during which some early estimates put the death toll at up to 75% of the population of Germany)¹⁸ the Peace of Westphalia of 1648 between the Holy Roman Emperor and the King of France bound both the text of religion and sovereignty into space in the form of the Nation State.

¹⁸ This has been more recently revised to the much lower, but still shockingly high 15-20%. G. Parker, *The Thirty Years War*. London & Boston: Routledge and Kegan Paul, 1984. General Mertaigue in Nassau said of the aftermath of the war, 'I would not have believed a land so despoiled had I not seen it with my own eyes'. C.V. Wedgwood, *The Thirty Years War*. London: J. Capre, 1938.

The Nation State: the Sovereign in Space

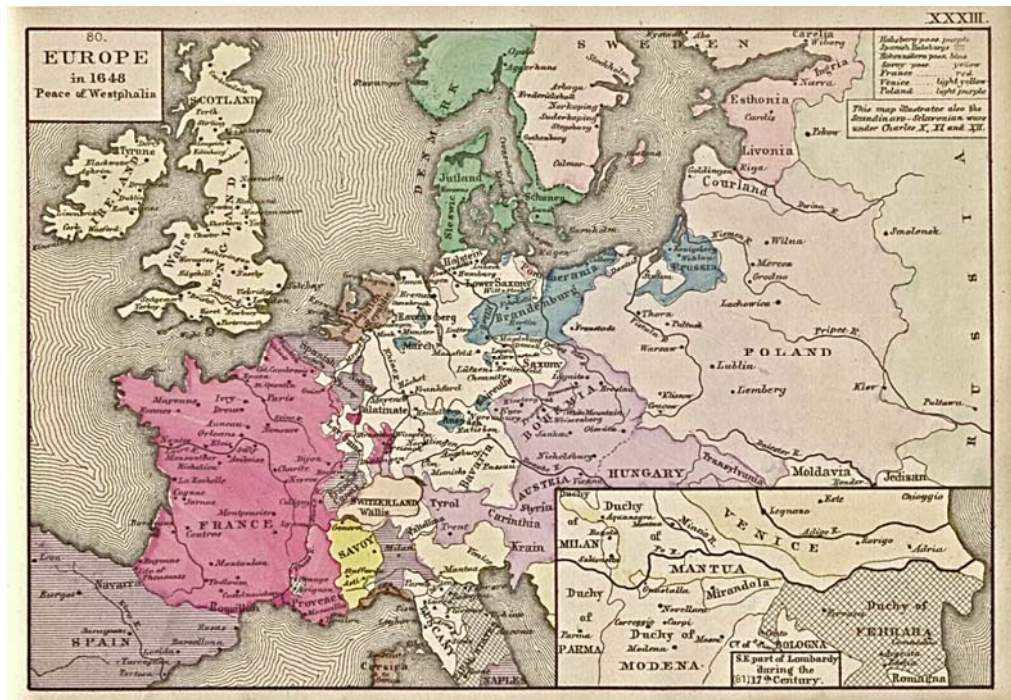


Figure 59
Europe in 1648, Peace of Westphalia
http://www.reisenett.no/map_collection/historical/Europe_1648_Westphal_1884.jpg
[accessed 29.5.2004]

The Peace of Westphalia is also known as the treaties of Münster and Osnabrück, the two cities where the treaty was determined (two were needed since the leaders of the Protestant and Catholic forces refused to meet each directly). Prior to this Treaty the Thirty Year War had been driven by a contest between rival trans-national discourses of religion. The decline in authority of the church over the state had been going on for some time, but with this Treaty the primacy of the state was explicitly laid down, and power ceded from the church to the state. Anderson describes the implications of this Treaty:

in Western Europe the eighteenth century marks not only the dawn of nationalism but the dusk of religious modes of thought.¹⁹

¹⁹ B. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, Revised Edition. London & New York: Verso, 1991, p. 11.

The most important aspect of the Peace was that it made the state sovereign within its territory, providing the basis for the Nation State as it is currently understood. This sovereign state's authority was bound within its physical territory which would end at the border of the next sovereign state or at the coast. In this case the limits of identity, being defined by what one is not, in a very concrete manner. Within each state, the sovereign had the sole monopoly of legitimate violence. The Treaty also bound the rival religious discourse within space. Each prince or sovereign had to choose the religion or discourse that they would adopt. If at any point this was to change, then under the terms of the Peace they would no longer be considered the legitimate ruler of that nation. Thus the ability of one discourse to encroach on the physical territory occupied by another was greatly diminished.

Nearly three hundred years later in 1945, the Charter of the United Nations, 1st chapter Article II, further reinforced this notion of the sovereignty of the nation, even though international matters between member states are to be within its domain, the individual member nations retain absolute authority within their domestic (and sovereign) territory.

7. Nothing contained in the present Charter shall authorize the United Nations to intervene in matters which are essentially within the domestic jurisdiction of any state or shall require the Members to submit such matters to settlement under the present Charter; but this principle shall not prejudice the application of enforcement measures under Chapter VII.²⁰

The transnational nature of the Internet comes into conflict with this understanding of the Nation State's sovereignty in space. The transition to this new form of secular authority also changed the way individual citizens would identify with the state. One

²⁰ *The Charter of the United Nations*. <http://www.un.org/aboutun/charter/> [accessed 9.7.2005].

of the implications of this can be seen in the enlightenment interest in the study of folk history, national mythology and poetry as the nation sort to define itself as an entity outside the understanding provided through religious discourse. The development and interest in the national epic, such as the Kalevala in Finland, and the wider interest in folk poetry and song arising out of the National Romantic Movement of the late Eighteenth Century can be seen as developing out of this project.

Image Removed

Figure 60
Time by Dave McKean
<http://www.dreamline.nu/theparticletarot/>
[accessed 7.6.2005]

The Evolution of the Citizen and the State: the Sovereign in Time

The sovereign Nation State is not only bound to space, but in time. The most obvious manifestation of this occurs when the power of sovereign authority transfers from

one ruler or ruling group to another, whether this be through the ascension to the throne of the new hereditary ruler, the transfer of power following parliamentary elections, or the passing of power from one president to their successor. These occasions are usually infused with a high degree of ceremony. They both legitimise the new ruler in the eyes of the population, and cement and codify the transfer of authority over legitimate violence. The manner of the sovereign coming to power defines the legitimacy of their rule. If there is no acknowledged legitimacy, then the potential for rival power structures and a break in the monopoly of legitimate violence become a threat to the state.

For physics, time is a function of the gravitational field, however in different social frameworks time will manifest in different ways. In a feudal framework, time is seasonal, following the seasons of each year, and being a measure of when to sow and when to harvest. In a capitalist or modern framework time is linear. It measures the working day, and productive efficiency. In a post-modernist framework time is cyclical, it bends, loops and repeats. Marx described the development of production through Feudal, Capitalist, and Post Capitalist modes. However time can also be used to track the changes in the modes of citizenship as the understanding of sovereignty has evolved.

Prior to the sovereign being bound in space, citizenship was less tightly defined ideologically and varied widely in its definition, application and mobilisation. For many of the less advantaged in society, this meant that they were bound to a smaller area within the nation, such as medieval peasants bound to service in the lands of one noble, or the residents of one town. For others, this situation allowed relative

freedom to travel under the jurisdiction of supernational sovereigns such as the Latin-speaking elite of pre-reformation Europe. This can also be seen in earlier formations such as the Roman Empire. St Paul, a Roman citizen was able to travel the Empire proselytising his then subversive discourse of Christianity. When he fell on the wrong side of Roman troops in Jerusalem and they went to flog him they found themselves unable to take such actions against a Roman citizen.²¹



Figure 61
St Paul Preaching in Athens, painting by Raphael.
<http://www.artofeurope.com/raphael/rap15.htm>
[accessed 21.6.2004]

Once the Nation State is given pre-eminence in relation to sovereignty over its territory each citizen becomes enmeshed in the order created by the sovereign's monopoly on legitimate violence within that national territory. While it is possible to

²¹ Acts 22: 24-29. <http://www.biblegateway.com/passage/?search=Acts%2022;&version=31>; [accessed 14.6.2005].

travel from one sovereign's territory to another (and indeed the sovereign can choose to banish individuals from their territory) generally the sovereign and the individual citizen will remain within the same territorial space, the individual bound by the laws of the state, and the state having responsibility for the citizens within its territory.



Figure 62

Mahatma Gandhi attending the Round Table Conference in London, 1931

<http://www.mahatma.org.in/pictures/showpics.jsp?picture=piccat0006&link=ph&id=46&cat=pictures>
[accessed 21.6.2004]

Mahatma Gandhi was born in the periphery of the British Empire as a citizen of India in 1869. He was sent by his family to London to study law. While Gandhi was able to travel to London, the core of Empire, where the Emperor of India resided, he did so as a citizen of a Nation State on the periphery, and took that layer of disadvantage with him manifest in his passport. Later in life, after time in South Africa, another Nation State at the periphery of Empire, Gandhi returned to India. He was then able to mobilise the Nation State as a site of resistance to British rule. What he did was turn the formation that had previously been used by Britain as a method

of domination into the site of resistance to this rule, crossing through ethnic and religious lines that might otherwise divide the Indian citizenry.

The digital citizen is enabled through the digital self and its multiple digital identities. While the off screen self is still resident within a Nation State, and in the world constructed by the Treaty of Westphalia, these projected identities reach outside of this construct through the Internet, and may interact across the jurisdiction of multiple Nation States simultaneously. These identities are not subject to the monopoly of legitimate violence expressed by any one state, but rather engage with the discourse of digital citizenship and sovereignty when constraining their actions to interact and exist alongside others within this environment.



Figure 63
David Cake
<http://www.orkut.com/>
[accessed 5.8.2004]

David Cake works for a sound production studio in New York maintaining their computer system. He does so through reaching out with his projected digital self through the Internet from his home in Perth, Western Australia. When doing so, he utilises other online resources housed within yet other Nation States. His work's relationship to the laws of any one of these nations as they apply to occupational

health and safety, workers compensation insurance and even taxation is ambiguous. Were any of these states in which he ‘resides’ while at work to try to regulate his activity, their ability to firstly identify who he is through his various digital identities on the one hand, and then take any coercive action to enforce their will on him, on the other, would be highly constricted. As well as being an active digital citizen, Cake is actively involved in influencing the discourse of sovereignty as a member of the board of Electronic Frontiers Australia.²²

Sovereignty and the Invisible Empire

Historically, the sovereign has been represented by a head of state, symbolic of the legitimisation of the potential violence that they represent, they can take the form of a King, a Governor General, a Parliament, or a President. They have control of the monopoly of legitimate violence within the territory that the state is bound. For Hobbes this serves to save the residents of that territory from the state of nature, for those who drafted the Treaty of Westphalia it served to end the struggle between rival religious discourses over territory that lead to the Thirty Year War.²³

The digital self, while sharing characteristics with the off screen self, is not the same, the transformation to the digitised environment of the Internet has implications for the understanding and manifestation of space, time and identity. Importantly also for the individual, and for understanding sovereignty, violence is activated differently.

²² ‘EFA Board Members 2004/05’, <http://www.efa.org.au/AboutEFA/board.html> [accessed 14.6.2005].

²³ While the Nation State as conceived in this Treaty did end this period of war, the most destructive wars in human history have all been fought subsequent to this time. As Anderson put it ‘The century of enlightenment, of rationalist secularism brought with it its own modern darkness’ B. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism, Revised Edition*. London & New York: Verso, 1991, p. 11.

This is critical when talking about legitimate violence. This is normally physical or economic violence against the self. This is the type of violence that works least well, or not at all, in the digital environment. Economic violence; fines, confiscation of assets, and taxation, is itself reliant on the ability to apply physical violence for enforcement. This is not an option in the digital environment. Additionally identifying, and locating the analogue off screen individual behind an individual digital identity, and then a broader digital self, can also create problems. Thus it is not just a matter of not being able to exert physical force on an individual, but also identifying any particular individual to direct any sanction at. Without the violence that is the foundation of the analogue sovereign, new methods of determining the rules that let citizens live side by side, and thus save them from some digitised state of nature, must be negotiated.

The Internet exists in a mode of space not conceptualised or permitted by the Peace of Westphalia. As a result, it falls outside of the world order that was determined by that Treaty, and which is separate from the conception of space that the modern Nation State relies upon for its foundation. While it is true that there are areas that exist outside the sovereign state as defined in the Treaty (international waters of the sea are controlled under the law of the sea, amongst others), these spaces are bound up in the worldview determined by that Treaty. The Treaty of Westphalia ended a bloody period in European history, while officially ending the Thirty Year War there had been a number of preceding bloody and protracted conflicts. This instability occurred as sovereignty was being renegotiated as the power of the Roman Catholic Church, itself resting on the residue of the Roman Empire, had its previous

monopoly of the religious discourse challenged. This type of world is profoundly unstable destructive of structures, literature and culture.

While other spaces exist outside the Nation State, the Internet is unique because it also exists within multiple Nations States, the Internet manifests, through its myriad gateways, in multiple jurisdictions simultaneously. Within each of these jurisdictions, there is a sovereign with a monopoly of legitimate violence. This has two effects. Firstly any Internet sovereign operating outside the Nation State system would violate this monopoly of violence (only one can exist at a time in any one place). Similarly the second impact of this is that no individual analogue sovereign can attempt to exercise their monopoly of legitimate violence on the Internet, as they would then be violating the sovereignty of other Nation States where the Internet manifests simultaneously. Thus nations make laws relating to Internet content hosted, and in some cases accessed, within their jurisdiction, but these laws must necessarily act on the 'user side of the screen'. If the nation deems content unlawful it has limited recourse, it can make it illegal to access within its territory, and attempt to block the content through its domestic telecommunications system, but it could not go out onto the Internet and destroy the content in some other Nation State without violating that second state's sovereignty. This is particularly interesting as the Internet, through its domain name system is segregated into individual national domains such as .au, and .uk. Yet any action by a Nation State to exercise sovereignty in regard to these domains would infringe on content hosted in the territory of other Nations States. This has, up until now, prevented any nation from testing the limits of national sovereignty in this area.

As a consequence of this overlapping space of sovereignty through the Internet there can, in effect, be no Internet sovereign as the term is understood in the analogue environment. *The Declaration of Independence of Cyberspace* in 1996 did not envisage a situation where there would be an armed struggle to overcome the existing sovereignty of the analogue world, rather it rejected the analogue world's sovereignty in the digital environment and indeed any sovereign power at all. However civil society needs to be supported through the potential violence of the state. When such theories are applied to the Internet, the results are unstable.

If the Internet manifests in a space outside that which the Nation State inhabits, then who or what is the Internet's sovereign power? Where, and who, is the Digital King? Gandhi observed 'all reforms owe their origin to the initiation of minorities in opposition to majorities'.²⁴ The dominant discourse relies on the fresh ideas and agitation of subordinate discourses to maintain itself, and to periodically be 'freshened up' and maintain its dominant position. However when looking at the power structures on the Internet, this is not the situation at all. Rather there are competing forces trying to exercise or influence sovereignty, the laws of how things are determined in the online environment. Like rival nobles during the War of the Roses, each has different levels and types of influence or sovereign power, and they are all competing for influence. Rather than a dominant discourse with subordinate rivals, there are different groups supporting rival discourses, with no clear domination of any one group. William Gibson in *Neuromancer*²⁵ imagined such a situation occurring in the off screen world as well as in cyberspace. In such a

²⁴ L. Gandhi, *Postcolonial Theory: A Critical Introduction*. Edinburgh: Edinburgh University Press, 1998, p. 92.

²⁵ W. Gibson, *Neuromancer*. New York: The Berkley Publishing Group, 1984.

situation there is no king, no symbol of the legitimate and exclusive power of the sovereign. While not quite the Hobbesian state of nature, it is clear that rather than form the foundation of order, digital sovereignty is in a constant state of flux and change.

Why then is there no Digital King? The first place to look for the answer to this question is to the early users who set the foundations of the grammar or foundation discourse of Internet governance. At first, it seems their understanding of the sovereign has either failed or been overthrown, however closer examination shows that this is not the case. Rather the discourse put in place by this group was one of a civil society with no state or sovereignty structure. Indeed the sovereign state is explicitly rejected. The declaration of independence of Cyberspace, rather than an invitation to war to win sovereignty from any nation, rejects the notion of any form of sovereignty in cyberspace.

Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. *You have no sovereignty where we gather.*

We have no elected government, nor are we likely to have one, so I address you with no greater authority than that with which liberty itself always speaks. I declare the *global social space we are building* to be naturally *independent of the tyrannies you seek to impose on us. You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear.*²⁶

Why was this determination the case? Violence against the person is a complicated proposition in the digitised environment. If there is no threat of violence, then why would civil society need to be underpinned by a sovereign with the recourse to legitimate violence for the protection of all? Unfortunately there is violence, in terms

²⁶ J. Barlow, *A Declaration of the Independence of Cyberspace*.
<http://www.eff.org/~barlow/Declaration-Final.html> [accessed 26.8.2003].

of crimes against self, property and state, however violence in a digitised context is different to that off screen. The potential threat for physical harm to the person for example is highly unlikely, where as economic loss is more likely.²⁷ While it is easy to destroy a simple copy of something online, is not like destroying something off screen, digitised content does not have a constancy of production, this does not mean that there are not losses and damage that can occur on screen. Civil society requires the potential of violence to maintain its power, so as not to break down. This is the inherent flaw in this initial discourse of the governance of the Internet.

The case study of Mr_Bungle and LambdaMOO provides an example of the complexity of the problems faced. LambdaMOO represented a far more controlled environment than the wider Internet. As with the early adaptors to the Internet, the players viewed that there was no possibility of violence against the person, and thus could see no reason for a sovereign to exercise violence to maintain their civil society. However Mr_Bungle demonstrated that there could be criminal behaviour in this environment. In this case there was a digital sovereign with ultimate authority, and the monopoly on 'digital' violence in the form of the games wizards or systems operators. However even when this violence was exercised and Mr_Bungle was put to his digital death, the limits of this sovereignty soon became obvious as the player existed off screen beyond the reach of the LambdaMOO sovereign, and rejoined the game as another character from a different email address.

This rejection of the monopoly of legitimate violence as represented by the state is further complicated by the fact that the users of the Internet exist off screen in the

²⁷ This however does not mean that the Internet cannot be used as a means of distributing the produce of physical violence off screen, such as child pornography or terrorist executions.

world of the analogue sovereign. Ultimately, they live in the jurisdiction of a Nation State. This is also true of the data that comprises the digital world. However data's ability to relocate, and be remotely copied through different jurisdictions, the fundamental benefit of digitisation, makes this much more problematic in terms of interaction with the analogue sovereign, and the ability of this entity to bring its monopoly of violence to bare on this type of creature. How then is authority constructed in the Invisible Empire and what, if any, is the place of the analogue Nation State in this process?

Jock Given labels Barlow's position as *revolutionary lawlessness*, or *digital libertarianism*. This is contrasted with two positions he labels *revolutionary constitutionalism* and *evolutionary constitutionalism*.²⁸ Lawrence Lessig, an advocate of the revolutionary constitutionalism position as outlined by Given, explains:

Liberty in cyberspace, will come not from the absence of the state. Liberty there, as anywhere, will come from a state of a certain kind²⁹

Lessig's position seeks to create a new political structure on the screen, utilising a new relationship between the state and the citizen. By contrast the evolutionary constitutionalism position, as outlined by Given involves the modest modification of existing laws and relationships to allow their smooth application on the screen.

Analogue sovereigns may choose to frame their laws in relation to the digital environment on the basis of these three categories. However, as argued throughout

²⁸ J. Given, 'Evolutionary constitutionalism: Australia law and the Internet', in G. Goggin, *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004.

²⁹ J. Given, 'Evolutionary constitutionalism: Australia law and the Internet', in G. Goggin, *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004, p. 214.

this thesis, each individual accesses the Internet alone at the screen. It is at the point of access that the digital citizen interprets the discourse of digital sovereignty that will determine their activation of citizenship. There will be a number of different forces influencing that discourse at any point in time, with different histories and agendas.

Digital Sovereignty



Figure 64
Crown Pictures
<http://www.crownintlpictures.com/>
[accessed 18.3.2004]

One cannot be the Digital Sovereign. Instead it is possible only to exercise digital sovereignty. Not a noun – a verb – doing not being. Therefore, it cannot be an identity – but only facilitate an identity. To the extent that there is violence on the Internet, and reaching out from there off screen, this violence is by no means a monopoly, and its legitimacy is subject to contest. As with citizenship, sovereignty moves from being a noun when referring to an analogue sovereign to a verb as sovereignty is exercised actively and competitively online. For the Internet there is no crown, no symbol of authority. Ultimately off screen the sovereign is always a symbol rather than an individual, or a government. This is embodied in the transfer of

power at the death of the monarch. ‘The King is dead, long live the King!’ However the symbol represents the foundation of power of the Nation State, its monopoly of violence. When conceptualising the sovereign, or the exercise of sovereignty, the signifier of the discourse is underpinned by the signified of this recourse to violence to enforce the analogue sovereign’s laws. Once online however the discourse of sovereignty represents signifiers, the form of a discourse that is not underpinned by the signified or content of the recourse to violence.

This digital sovereignty has no signified foundation, no determination of a fixed content from an ambiguous signifier, specifically the crown, and the monopoly of legitimate violence that it represents. Rather there are only signifiers, different discursive arguments about legitimacy, with no content of enforcement to fall back on. Charles I relied on the discourse of the Divine Right of Kings as the signifier to underpin his reign. There was insufficient military force to act as the signified content to support his discourse, and as a consequence of inhabiting the off screen world where physical violence is a real option, he lost his throne, and his head. However on the Internet there is no physical violence against the individual that could act this type of signified content. Thus there can be no signified threat of violence to underwrite the signifier of the sovereign, rather only signifiers of sovereignty that dance together to produce the discourse of sovereignty. The colonial administration of the Internet that sets its standards and distributes its virtual real estate was set-up with this empty centre in mind, the civil service without a state.

Those who initially set the grammar of the digital civil society viewed the lack of defined central authority as a positive attribute. There was no need for protection

from violence. No violence was possible. This must be seen in the context of the economic position of that group and their understanding of the distribution of resources in this environment. For them, the Internet was a repository of social capital. Everything produced and stored on it added to this social capital, which benefited all (or more accurately, all who could access it). Significantly they did not make their own wealth online, rather as academics and researchers employed by industry and universities, they made and stored their personal wealth off screen. While they could add content to the Internet, and assumed it would be available freely, at the same time, it did not cost them anything as their income was derived and stored externally to this environment. In many cases, this shared information made their work more efficient, a classic effect of social capital, but once again their income and wealth, while related to this, was not derived from it. One of the most famous examples of this group is Linus Torvalds, who released the open source Linux operating system in 1991. He wrote the code while a computer science student at the University of Helsinki.



Figure 65
Tux the Penguin, the official Linux Mascot
<http://www.isc.tamu.edu/%7Elewing/linux/>
[accessed 8.6.2005]

The increasing commercialisation of the Internet as it spreads beyond the community of these early adaptors resulted in the Internet evolving into a place where private capital was stored and generated. Once this colonisation by capitalism occurred, the original discourse of the on screen civil society with no need for a sovereign to underpin and provide the signified content of a recourse to violence to enforce laws began to crumble. The need for the protection of private goods, rather than just the mutual distribution and storage of social goods, meant that the space envisaged by these early adaptors was unable to provide the foundation for the regulation and protection of this new private capital. Adding to this fracturing process was the properties of the digital private capital now being traded. Without a constancy of production the investment in digital goods occurs in the creation or development phase, rather than in the reproduction of the goods themselves, which can easily be copied at virtually no cost. To view digital property necessarily creates a copy of it. This generates a fundamental conflict between the generation of digital goods, and their distribution.

This period of commercialisation tracked massive growth in the online population. Following this change in the total number of Internet users was a corresponding change in the demographic and political activity of this new group. Those who had previously been excluded by wetware or cultware, were now able to take advantage of the relative ease of access provided through the World Wide Web, and the greater distribution of the hardware and infrastructure to gain access. While still engaged in political decisions as digital citizens this new population did not necessarily share the activist ideology of the early adaptors. The Internet as an empowered literacy is integral to the aspirational class and their children, a skill to be obtained. While the

Internet is an important enabling literacy for this group, they are perhaps less devoted to the ideology of the technology more prevalent in the early adapters. A recent study of connectivity found that it only took an average of five to six emails to connect any two people on the Internet, which at first might suggest that it is quite easy to communicate with the online population, however the study initiated 24 000 email chains of which only 400 were completed due to the people involved lacking interest.³⁰ As the online population grew, the nominated sign moved from the elite signification of the few online, to the disadvantage of those who continued to be excluded.

Off screen entities that perform different roles in the economy are only in competition with similar entities. When they are not in competition, they are not a threat to each other. Two bakeries on the same street will compete for customers for their bread, but will not be in competition with the clothing store located between them. This is partly a function of the constancy of production of off screen goods. However on the Internet, entities can be at economic odds with each other over their different and competing interpretations of the discourse or modes of capitalism. Thus one company can generate content, and be at odds with another company that distributes content. With no central authority to decide who is correct, both must struggle for control of the discourse and the dominant interpretation of digital citizenship.

The struggle for the discourse can be distilled into the struggle within an understanding of private capital between rewarding different entities who develop

30 D. Smith, 'We're all just an email away', *Sydney Morning Herald*. 9th August 2003.

distribute content and information, and balancing this struggle against the benefit to society of the free flow of information, and the generation of social capital. The hacker's creed 'Freedom of Information' explicitly rejects the ownership of information, but at the same time the majority of those who subscribe to this creed did not generate their income on the Internet, but rather off screen. To take a paid position generating private capital online would be seen, within this understanding, as a sell out.

Wealth is now both generated and stored on the Internet. There is virtual property, production, goods, services, and currency. All these 'things', objects of private capital, exist and importantly, they can be taken away. Off screen, the Nation State has control of wealth within its jurisdiction, how it is generated, distributed, taxed and transferred. Political power and economics cannot be separated. The conflict between the residue ideology of the pre-commercialised Internet generating primarily social capital and these new 'land owners' of private capital on the Internet and the struggles that occur within this group of new capitalists over the legitimate discourse of commerce on the Internet is at the heart of the struggle for control of the discourse of sovereignty. Because physical violence does not occur on screen it is very hard to exercise violence to achieve desired outcomes, a state cannot just invade cyberspace. Because the crown is explicitly absent, and violence is not an option, the struggle becomes a unique and very complex one.

Physical violence can be utilised off screen to leverage activities in the digitised world, however success is far from guaranteed. Once again the monopoly of legitimate violence only exists within one jurisdiction, and moving from one

jurisdiction to another through the Internet is relatively easy. While this may be overcome to an extent with sufficient corporate resources, such as the Recording Industry Association of America (RIAA), the discourse of the early adaptors has the advantage as the foundation grammar. This gives them an inherent edge when arguing in an analogue court, as they can point to ‘the way things have always operated’. While this may aid one side of a debate when social and private capital come into conflict on the Internet, these conflicts are most often driven in the first instance by competing understandings of private capital that then inadvertently impinge on the social capital that is still found in this realm.

Within this complex environment some of these competing digital sovereigns are highly literate. The RIAA has launched litigation against the file sharing software KaZaA in multiple jurisdictions in North America, and Europe, and most recently the company’s head office in Sydney was raided by Australian authorities. The majority of cases in the northern hemisphere have so far ended in KaZaA’s favour, although this has not deterred the RIAA from pursuing the organisation in the territory of other analogue sovereigns. KaZaA however also makes use of the multiple jurisdictions available in the off screen environment.



Figure 66

KaZaA

<http://www.kazaa.com/us/index.htm>

[accessed 15.6.2005]

KaZaA is a file sharing system. It allows individual users to search for files on other individual's computers and then download a copy, or 'share' them. This was a similar system to that used by Napster to allow individuals to share music MP3 files, although KaZaA does not focus specifically on music. Peer to peer file sharing or P2P represents one paradigm or discourse of information on the Internet. This discourse assumes that users will 'share' information that they 'own' by virtue of it being digitised on their computer systems. This assumes that the information being shared is free from copyright, or that copyright laws do not apply/matter in these cases. By contrast, the Motion Picture Association of America (MPAA) and the Recording Industry Association of America have been active in trying to shut down, and have declared illegal, this paradigm and these companies in particular, with famous success in the case of Napster. They represent strongly the alternate discourse that people using this system are stealing theirs, and others, copyright in these instances.



Figure 67
Motion Picture Association of America
<http://www.mpa.org/home.htm>
[accessed 14.6.2005]

KaZaA makes an interesting case study in itself in the trouble with applying traditional analogue sovereignty to the Internet based digital environment. A Dutch company, FastTrack consisting of a Dutch and Danish partner, first formed the

company to operate KaZaA. They then subcontracted writing the code to a group of three young Estonians. They originally, in 2001, were distributing their software through three organisations based in Tennessee, in the United States, the Netherlands, and the West Indies. The pair ran into legal trouble, first with the music industry in The Netherlands, who they eventually successfully defeated in the courts, and then in the United States. Soon after this ruling, KaZaA was sold to a Sydney based businesswoman, Nikki Hemming, who bought the business in 2002.³¹ Since then its United States based arm has closed down, the controlling company has been registered in Vanuatu (apparently for tax reasons), and it may or may not have a central server on the Caribbean Island of Nevis, depending on whose version of how the software operates you believe (the company will not release any details as they are considered commercially confidential). The main web site distributing the software operates out of Denmark. The program is used extensively in the United States, where it faces legal action from the RIAA and MPAA amongst others, but the company's international distribution through space and jurisdiction has greatly hampered this process.³²

Many of the conflicts that occur in relation to the Internet mirror existing struggles that have already been fought off screen, such as the courts approving the use of video cassette recorders to copy TV content, and the inability of the content producers in this case to sue the manufacturers of these devices. The significant difference is that once the digitised version has been created, it can be copied, many times, and virtually no cost. Similarly this provides for physical violence to be a

31 J. Borland, 'The Brains Behind Kazaa', *News.com*, 23rd April 2002.
http://news.com.com/The+brains+behind+Kazaa/2008-1082_3-890072.html [accessed 5.8.2005].

32 A. Jesdanun, 'File-sharing system becomes focus of international legal intrigue', *AP Worldstream*, 3rd February, 2003.

much weaker remedy for the courts, as unless all copies are confiscated or destroyed then the program/product can easily be replaced, and it is easily moved from one sovereign territory to another.

A copy of KaZaA is simply that, a copy. Replication costs nothing (as opposed to a VCR or even a VCR tape). The expenses have been paid in development. It can move, or more accurately, be copied into a new sovereign territory off screen should the one it currently inhabits become hostile. Of course the fact that all the cost was in development, means that if the developer is to receive any reward then their copyright must be rewarded in some way, and for these very same reasons that can become problematic.

One model to theorise and track the early adaptors is found within the history of the Catholic Church in pre-reformist Europe. For both their discourses provided a stable environment within the context of their situation. However this initial structure was unable to cope with the influence of rival and incompatible discourses. For the Catholic Church, this came in the form of the reformist movement. For the discourse set in place by the early adaptors on the Internet it was private capital, and capitalism. As Gerry Blackwell states of this new struggle over control of information ‘I’m thinking this is the next Hundred Years War.’³³ However the transformations that occur when dealing with the digital environment and the digital citizens circulating within it, make this struggle fundamentally different to those that have gone before. Whereas the religious discourses were able to mobilise their struggle around the Bible as a text of sovereignty, interpreting the ‘Word of God’,

³³ G. Blackwell, ‘Analysis DVD the next MP3?’, *The Toronto Star*. 20th March 2000.

this occurred when texts were bound, like the fruit of knowledge from the Garden of Eden, in off screen space, as were the citizens the discourses sought to constrain and control. This allowed for texts to be found and destroyed, and the struggle to play out as an armed conflict, with much resulting death and destruction. However it also allowed for the solution to the struggle as the discourses became even more firmly imbedded in the analogue world, as they were bound in space at the Peace of Westphalia. In the digital environment the absence of the off screen physical presence of the individual digital citizens results in a situation where on the one hand a bloody and protracted armed conflict is unlikely, but also that a concrete solution based on a monopoly of legitimate violence, represented by the Nation State is also no longer an appropriate option. It creates a space where sovereignty is necessarily unstable and subject to continuous negotiation.

Digital sovereignty then is the intimately linked to the discourse of digital citizenship. Both describe the active process of engaging with the discourse that informs the correct and propriety way to act in this digital environment. The discourse of digital sovereignty and digital citizenship conflate, the label is dependent on what action is taking place, actively influencing the discourse of digital sovereignty, or interpreting the discourse of digital citizenship. Rival sovereigns pressing their agenda inform the discourse through ongoing engagement. Individual digital citizens then interpret the result of this at any point in time separately as they too engage with the discourse to activate their digital citizenship. The ability of the rival forces of digital sovereignty to connect with the digital citizen then becomes the signified foundation for their exercise of sovereignty. The weak and transitory nature

of this connection then creates a radically different environment to the analogue capitalist civil society founded on the sovereign's police force.

Control of the discourse of sovereignty and citizenship becomes critical for the success of rival capitalist ventures in the digital environment. This is the reason that some actors seem to focus on areas that otherwise seem trivial, thus record companies in the United States suing children and pensioners who have copied one of their songs. For them they must cast their rivals as the treasonous Lucifer, and themselves as the legitimate throne in heaven. Is the light of the laser in the CD burner the proud but damned morning star Lucifer cast out of heaven, or is it the light of the world come to shed enlightenment and love from God? In an environment with limited recourse to physical violence Hobbes' theory is turned on its head and legitimacy becomes the primary concern, rather than the ability to exercise force, covenants can no longer be enforced by the sword. Yet the absence of physical violence also leads to a far less threatening digital state of nature, as the discourse that underpins the digital society is constantly in flux, it is the control and distribution of capital that is at stake, rather than the 'continual fear, and danger of violent death' that Hobbes predicted off screen. Physical violence is a quality of the off screen world. It has been taken out of the foundation of the digital civil society, or rather, by definition, could never have been there.

Sovereignty is always exercised at the edges or borders, creating a stable place in between for civil society, and the commerce it enables. When a person goes to the shop to buy bananas the exchange of goods for money occurs. While ultimately it could be argued that this transaction occurs due to the inherent threat of violence

from the state to enforce laws against theft, the purchase rarely takes place in an atmosphere of fear. The obedience to the law is internalised, the transaction subject to Gramsci's civil rather than political control. Rather the exercise of sovereignty on the edge, or at the border where civil society might otherwise break down facilitates an exchange that is based on convention and accepted procedure rather than fear of arrest. The fluid nature of digital sovereignty creates an environment where the 'edges' are subject to far more movement and negotiation than might be found in the analogue Nation State. However the more limited recourse to physical violence on the Internet facilitates an environment that is much better suited to withstand the strains of this movement. A person is trapped in the middle of a riot, on the wrong side of the edges of a stable civil society, experiences physical danger, not the least of which is from the state as it attempts to reassert its authority. By contrast, a digital citizen is actively involved in negotiating the positioning of the edges and borders of the digital civil society. While negotiating the edge or border different digital sovereigns will be trying to have their understanding of the borders and regulation accepted, this necessarily creates a blurring of those lines under negotiation. While a digital citizen might find themselves on the 'other side' as defined by some digital sovereigns, this is unlikely to place them in any physical danger. The digital self, is the projection of the off screen self, whose safety is determined by the space they inhabit within the civil society of the Nation State. The stable civil society provided by the analogue Nation State provides a safe environment for the off screen individual, that are then able to project themselves on screen out through the Internet as digital citizens. This effectively underwrites the inherently unstable digital civil society on the Internet, by providing a place for the potential violence of the state to

serve to protect an off screen individual from violence, and thus allow the freedom of the on screen digital citizen to constantly renegotiate the space they inhabit.³⁴

This protection provided by the screen has started to break down as some groups attempting to influence the discourse of digital sovereignty, owners of copyrighted material, most notoriously the recording industry, both in the United States and in Australia, have been actively trying to leverage analogue laws through the screen to support their understanding of the discourse of digital citizenship and sovereignty. As bandwidth has increased the size of the files that can be easily transferred, the recording industry has been joined by the motion picture production industry. This then begs the question, who are those trying to influence the discourse? Who are the digital sovereigns?

Image Removed

Figure 68
***The Tower* by Dave McKean**
<http://www.dreamline.nu/theparticletarot/>
[accessed 13.6.2005]

³⁴ Obviously in the case where an off screen individual does not reside within a state that supports this kind of civil society, then they do not have the opportunities provided by this environment.

Who are the Digital Sovereigns?

Like the rival noble factions in the War of The Roses, with absolute sovereignty fractured, the rival digital sovereigns have different levels of power and influence, shifting allegiance. With different groups and organisations realigning in relation to different issues or different parts of the discourse of sovereignty. There are numerous individual digital sovereigns acting to influence the discourse of digital sovereignty. There are, however, a number of groups of these entities that act with similar motivation and ideology. Both the exercise of sovereignty and the interpretation of citizenship are fickle and fluid. The same individual can embody more than one discourse, and rapidly move and renegotiate their position.

There is a group that represent the aims and objectives informed by the residue ideology of the utopian early adaptors. As Katie Hafner describes them:

Go back to the beginnings of Arpanet and you find a handful of people with roots in academe who embedded their quirks and idiosyncrasies in that culture, quirks that will always be there, no matter how many people come later.³⁵

These ideologies can be found represented in organisations such as the Electronic Frontiers Foundation, and Electronic Frontiers Australia. These groups lobby for the continued use of the Internet as a medium for social capital, and while not necessarily hostile to private capital, they oppose actions that effect the distribution and generation of social capital in order to protect the vested interests of different modes of private capital. This group can be seen as analogous to the Catholic Church

³⁵ K. Hafner, 'The Epic Saga of the Well', *Wired Magazine*. May 1997.
http://www.wired.com/wired/archive/5.05/ff_well_pr.html [accessed 16.6.2004].

in pre-reformist Europe. While they originally held power, that power has been fractured. Whereas for the church this was due to a loss in the absolute control of the interpretation of the 'Word of God', in this case it is the advent of private capital tearing at the fabric of a digital civil society conceptualised only to support social capital.

Image Removed

Figure 69
User Friendly by Illiad
<http://www.userfriendly.org/>
[accessed 24.6.2005]

As the early innovators, these individuals and groups had the opportunity to develop the grammar of the space where their rival discourses now compete. As such, the ideas that they espoused are resistant to change. The importance of getting this grammar in place early before the Internet had become commercialised and the population of those online, and of digital citizens grow can best be illustrated by the difficulty experienced by alternative discourses as they try to alter this early grammar. If someone is in a room of one thousand people and they can shout and be heard by nine hundred, then their ability to influence the whole room is quite high. If the population of the room grows to ten thousand and they can now shout to four thousand their absolute reach has grown by some three thousand, but their ability to

influence the behaviour of everyone in the room is greatly diminished. Knowledge in this context does not lose credibility, but it does lose its applicability.

The analogue sovereigns, the off screen Nation States also act to influence the discourse. They exert this influence through leveraging their off screen sovereignty, passing laws that while limited to a single sovereign territory, still will have influence over those who reside in, or wish to do business with, that territory. Their influence can be seen in any number of laws to regulate Spam, gambling, and pornography. The level of influence wielded varies widely, from the huge influence of the United States, through to countries with virtually no presence in the digital environment. Within the United States an example of this type of legislation was the *Digital Millennium Copyright Act (DCMA)* 1998,³⁶ was passed to increase legal protections of copyright holders of digital content. In Australia the *Broadcast Services Amendment Bill (Online Services) Bill* 1999,³⁷ gave the Australian Communications Authority power to issue takedown notices to web sites hosting offensive material.



Figure 70
Australian Communications Authority
<http://internet.aca.gov.au/ACAIINTER/>
[accessed 9.6.2005]

³⁶ DCMA (*Digital Millennium Copyright Act*), October 20th 1998.
http://www.eff.org/IP/DMCA/hr2281_dmca_law_19981020_pl105-304.html [accessed 21.6.2005].
³⁷ *Broadcast Services Amendment (Online Services) Bill* 1999. <http://66.102.7.104/search?q=cache:S-KACc1wK9sJ:www.aph.gov.au/parlinfo/billsnet/99077.pdf+broadcast+services+amendment+act&hl=en> [accessed 8.6.2005].

The Nation State also has a role in interpreting the discourse. The Norwegian government has announced that it was changing the use of computer software in the public service, so that propriety formats would no longer be used and that all information produced by the government would be available in, and generated by, open source software formats. Digital interaction with the Norwegian government, unlike many other national governments no longer requires a citizen to pay for a software licence from Microsoft.³⁸

A third broad group that influences the discourse comes from the various branches of the Internet public service, or more appropriately colonial administration, such as the Internet Corporation for Assigned Names and Numbers (ICANN), and The World Wide Web Consortium (WC3). While these bodies often argue that they make technical rather than political decisions,³⁹ in this type of environment the two are intrinsically linked. Control of this administration is currently in dispute. The attempt to usurp control of ICANN by Nation States at the recent World Summit on the Information Society, coupled with disputes over control of that domain name registry by both the International Telecommunications Union (a transnational organisation operating through the United Nations) and VeriSign (a private company that controls the distribution of the .net domain name suffix, based in the United States)⁴⁰

38 'Norwegian Minister: Propriety Formats No Longer Acceptable in Communication with Government', *Tatle*. 27th June 2005.
http://www.andwest.com/blojsom/blog/tatle/agenda/2005/06/27/Norwegian_Minister_Proprietary_Standards_No_Longer_Acceptable_in_Communication_with_Government.html

39 M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia, Incorporating Culture and Policy*. February 2003, number 106.

40 D. McCullagh, 'ICANN "Disappointed" in VeriSign', *News.Com*. 27th February 2004.
http://news.com.com/2100-1038_3-5166818.html [accessed 2.6.2004].

illustrates some of the many different types of organisations are seeking to influence this colonial administration, and its ‘technical’ decisions.⁴¹



Figure 71
World Wide Web Consortium
<http://www.w3.org/>
[accessed 21.6.2005]

A fourth group of note are the entities that are promoting their different interpretations of how the private capital of the Internet should be regulated. These are the digital equivalent of the rival discourse of the reformist church trying to usurp the existing order, and lay down their structure, discourses and ideologies. They are motivated by the need for a civil society capable of supporting their various understandings of capitalism and commerce. While this sometimes involves working against the interests of social capital, more often this group of digital sovereigns will compete within itself trying to produce an understanding of commerce that supports a particular version of ‘legitimate’ commerce. The conflict around the KaZaA file sharing network is a potent example of the activities of members of this group.

Digital sovereignty, as expressed through the Internet, is the control, modification and management of the discourse of citizenship which enables the digital civil society. It determines the relationship between that civil society (and the discourse of citizenship) and the individual monopolies of legitimate violence (law enforcement)

⁴¹ N. Thomas, *Colonialisms Culture: Anthropology, Travel and Government*. Cambridge: Polity Press, 1994.
E. Said, *Culture and Imperialism*. London: Chatto & Windus, 1993.

as expressed through multiple Nation States in which the Internet exists. The problem therefore is that the definition of the discourse of digital sovereignty is necessarily going to be unstable because it is reliant on a series of systems that are themselves unstable and up for negotiation. A series of competing institutions and organisations are not only debating about digital sovereignty, but the very definition of a digital sovereign.

Who Controls the Grammar of the Internet?

Prior to the Guttenberg press books in Europe were hand written, most often by religious scholars in Latin. The flow of information was small, and the readership of those who could access the information was also limited, the Catholic Church exerted its sovereignty to control this information, as can be seen in the earlier example of the persecution of Wycliffe. In the pre-secular print environment, where books were hand written, the majority of the population when confronted with a forbidden text were unlikely to have had the literacy to interpret any subversive message that it might contain. In these situations the text was largely symbolic,⁴² and the content was only accessible by the elites. If a book was deemed too subversive it could be physically found and destroyed, or locked up (as many were, and are, in the Vatican's library).⁴³

The advent of the printing press allowed for a far greater range of information to be produced and transmitted. While the church maintained control to an extent (the

⁴² Similarly the Catholic Church services were recited in Latin and could therefore not be understood by the majority of those who attended.

⁴³ The Vatican Library can be found online at http://bav.vatican.va/en/v_home_bav/home_bav.shtml [accessed 20.7.2005].

Gutenberg Bible was church approved and in Latin) the rise of the power of the multiple Nation States started erode this level of control. Tyndale had his English translation of the Bible printed in Germany for distribution in England. However the Nation State was still able to utilise its recourse to physical force to control this information, only two copies of Tyndale's work remain, out of the print run of between three and six thousand. The authorities in England at the time sought out these texts and punished those who had possession of them, copies were burned at special ceremonies in London.

To be able to publish texts off screen requires a certain level of economic resources and occurs within the regulated legal framework of a Nation State. The Nation State has established laws for dealing with forbidden texts that exist within its off screen jurisdiction. The Internet 'sovereignty' of any one Nation State has been problematic to both define and enforce laws within. Additionally the implications for space, time and identity of this environment make finding 'where' a text is located, as well as the identity of the author and publisher much harder to determine, let alone locate off screen, and if it can be said to be forbidden in this context, then also punish. Once a message or text is released on the Internet, it is very difficult to regain control of, as the easily copied attributes of digital information, and its ability to move quickly and easily through space make such a task nearly impossible. These characteristics draw those who deal in, and produce forbidden texts to this medium. These groups can then utilise this medium to get their message across, or trade in these texts. The early adoption and continued use of the Internet by the far right on one hand, and paedophiles and child pornographers on the other, both being examples of these discourses.

Forbidden Texts

Walters Diaries were stored in the pornography section of the British Museum. The museum's regulations stipulate that anyone who wishes to read them must do so in the company of a museum attendant. They are deemed too subversive for people to read alone. These same texts can also be found on the Internet <http://www.my-secret-life.info/index.htm>, where the choice of how many people are present with the reader is less regulated. Similarly the book *Mein Kampf*, by Adolf Hitler is banned in Germany⁴⁴ yet can be accessed online at http://www.hitler.org/writings/Mein_Kampf/. The Nazi propaganda film *Triumph of the Will* is also outlawed in Germany.⁴⁵ A text description of each shot in the film can be found at <http://www.geocities.com/emruf4/triumph.html> and it is available for online purchase at <http://www.amazon.com/exec/obidos/tg/detail/-/B00004WLXZ/002-3470941-4924032?v=glance> (which is only one example of a number of sites that sell copies of this production and can be easily located through a simple Google search at the Google Germany website <http://www.google.de/>).⁴⁶

There are also more active subversive texts at work through the Internet. At the point of access both the human user and the computing device that they are projected through can interpret text. A text can speak to one or both of these entities. This has

⁴⁴ The copyright to the book is owned by the German state of Bavaria which does not permit any publication of the book. However selling the book would also be against German laws that prohibit books espousing Nazi philosophy from display or sale, with a penalty of up to five years in prison. 'Online Sale of Hitler Book Stopped' *The Associated Press*. 21st August 1999.

⁴⁵ The film is banned under the same laws that outlaw *Mein Kampf*.

⁴⁶ Within Australia digitisation through the Internet has potentially confused the understanding of forbidden texts, as content from television such as Australia's Funniest Home Videos while legal and approved in that context potentially becomes illegal once available online. An individual can potentially face ten years jail for downloading such programs, given their depiction of naked children. C. Abood, 'Tackling Child Pornography on the Internet', *Online Opinion* 23rd March 2005. <http://www.onlineopinion.com.au/view.asp?article=3275> [accessed 14.6.2005].

given rise to a new type of outlawed text, the computer virus. In this case the text's subversive message is relayed directly to the computer, often bypassing the operator altogether. While some of these are purely destructive pieces of code designed to damage networks and delete data, others have a more guided purpose. This can be criminal, such as to take control of a machine to send unsolicited email, but also political, such as Internet worms designed to launch a denial of service attack on Microsoft's Web site. In this case the text is literally used to attack a specific digital sovereign, and limit their ability to communicate their understanding of the discourse of digital sovereignty.

While the discourse of digital sovereignty is subject to change there are some areas where it has largely been determined. Child pornographers are drawn to the Internet as a space that is accommodating to forbidden texts. Within the discourse of digital sovereignty, there is wide acceptance that this type of content should be considered outlawed.⁴⁷ Thus many analogue sovereigns work within their own jurisdiction and in cooperation with each other to utilise their off screen legitimate violence to prevent this type of content being produced, distributed, and procured, through the Internet. Similarly many of the other organisations competing for control of the discourse of digital sovereignty exercise what power they have to aid this exercise. However the fact that such content is still available, albeit in as a widely agreed outlawed text, demonstrates the limits of power of digital sovereignty to enforce its

⁴⁷ M. Ferraro & E. Casey, *Investigating Child Exploitation and Pornography: The Internet, The Law and Forensic Science*. Amsterdam: Elsevier/Academic Press, 2004.

Australian Parliament: Joint Committee on the Australian Crime Commission, *Cybercrime Australian Joint Committee on the Australian Crime Commission*. Canberra: The Committee, 2004.

M. Talor & E. Quayle, *Child Pornography: An Internet Crime*. London: Brunner-Routledge, 2003.

P. Jenkins, *Beyond Tolerances: Child Pornography Online*. New York: New York University Press, 2001.

S. Anderson, 'Internet child pornography: raids and research', *Youth Studies Australia*. December 2004, volume 23, issue 4, p. 3.

dictates. Digital sovereignty is determined at the point of interpretation, at the screen, by each individual digital citizen.

The Catholic Church has embraced the Internet. The Vatican library, repository of many forbidden texts has its own Web page http://bav.vatican.va/en/v_home_bav/home_bav.shtml as does the Vatican Secret Archives at http://www.vatican.va/library_archives/vat_secret_archives/index.htm. Pope John Paul II had the first papal email address john-paul-ii@vatican.va, although it was only turned on for special occasions.⁴⁸ Speaking in January 2002, The Pope said of the Internet:

The Internet causes billions of images to appear on millions of computer monitors around the planet. From this galaxy of sight and sound will the face of Christ emerge and the voice of Christ be heard? For it is only when His face is seen and His voice is heard that the world will know the glad tidings of our redemption.... Therefore... I dare to summon the whole church bravely to cross this new threshold, to put out into the deep of the net, so that now as in the past the great engagement of the Gospel and culture may show to the world “the glory of God on the face of Christ”⁴⁹

Although he also cautioned:

The essence of the Internet in fact is that it provides an almost unending flood of information, much of which passes in a moment. In a culture which feeds on the ephemeral there can easily be a risk of believing that it is facts that matter rather than values.

John Paul II’s successor, Benedict XVI can now be contacted at benedictxvi@vatican.va. The Holy See first went online on Christmas Day 1995. The

⁴⁸ Although given that he received 180 000 emails in one day, on the 25th anniversary of his election to office perhaps this is understandable.

⁴⁹ J. Crampton, *The Political Mapping of Cyberspace*. Edinburgh: Edinburgh University Press, 2003, p. 73.

server room, located in the Apostolic Palace houses the three main servers named after the archangels Michael, Raphael and Gabriel.⁵⁰



Figure 72

Saint Isidore of Seville

<http://www.catholic-forum.com/saints/sainti04.htm>

[accessed 31.12.2004]

There is currently no patron saint assigned to the Internet, however St Isidore of Seville 560-636AD.⁵¹ known for his writings including an encyclopaedia and dictionary, became a candidate for the position in 1999.⁵²

The Catholic Church lost its monopoly on the interpretation of religious discourse, the ‘Word of God’, in the face of the reformations challenge to its sovereignty in this area. The Treaty of Westphalia attempted to end the bloodshed corresponding to this challenge by binding the power of sovereignty in space to the Nation State. However just as the Church wielded authority across national borders prior to the Treaty, and

⁵⁰ DPA, ‘Pope Goes Online’, *Sydney Morning Herald*. 21st December 2004.
<http://www.smh.com.au/news/Technology/Pope-goes-online/2004/12/20/1103391704016.html>
[accessed 15.6.2005].

⁵¹ St Isidore’s symbol is a bee and his memorial is the 4th of April.

⁵² Isidore of Seville. <http://www.catholic-forum.com/saints/sainti04.htm> [accessed 14.6.2005].

to a reduced extent following the signing of the Treaty, there has been a long history of constructions that have both reached across notational borders and subsumed entire nations within their dominion, the empire. One of the signatories of the Treaty of Westphalia still bore the title of Holy Roman Empire, harking back to the Empire of Rome from nearly a millennia before that time. It was through the expansion of the British Empire, and its peers, that the rest of the world came to be ordered under the Treaty as discrete Nation States.

While digital sovereignty manifests online, the discourse also interfaces with the off screen world of these analogue sovereign Nation State. Similarly the digital citizen comes from the projected digital self, itself a projection of a person's off screen self. It is at the point of access that these off screen and on screen formations conflate. It is at that point that the race, gender, social position and national residence of a person interfaces with their digital identity. It is also at that point that the discourse of digital sovereignty interfaces with the analogue Nation State, at the edge of the Invisible Empire.

Chapter 6

Core and Periphery: The Invisible Empire



Figure 73

Where does my loyalty lie if not here?¹

<http://www.lordoftherings.net/legend/gallery/>

[accessed 14.3.2005]

Oh, East is East, and West is West, and never the twain shall meet,
Till Earth and Sky stand presently at God's great Judgment Seat;
But there is neither East nor West, Border, nor Breed, nor Birth,
When two strong men stand face to face, tho' they come from the ends of the
earth!

– Rudyard Kipling, *The Ballad of East and West*.²

In *The Lord of The Rings*, Faramir is torn between loyalty to his Nation State of Gondor, and his responsibility to the wider empire of men of the west, in its war on Sauron. He ultimately chooses to serve his national sovereign, in this case his father

¹ *The Lord of The Rings: The Return of the King*. Written by Peter Jackson, Frances Walsh, and Philippa Boyens, directed by Peter Jackson, New Line Cinema, 2003.

² Rudyard Kipling Poems.

http://www.everypoet.com/archive/poetry/Rudyard_Kipling/kipling_the_ballad_of_east_and_west.htm [accessed 14.3.2005].

the Steward, rather than the best interests of the broader empire. Empires serve to break down the understanding of responsibility and citizenship that is contained within the borders of the Nation State, and replace it with a more complex construction.

When analysing digital sovereignty, the emphasis is placed on how people and groups on the screen or ‘through’ the Internet are competing for control. When discussing Invisible Empire, the focus of the analysis turns to how this construction interfaces with the analogue or off screen world. The digital realm of the Internet extends into the territory of many separate analogue sovereigns. This is not a unique structure in global political history. Rather, the role of the empire in influencing and controlling many separate Nation States is a recurring theme since humans cultivated land and lived in permanent settlements. While it is correct that the Invisible Empire does not perfectly mirror, track or perpetuate what has gone before, and there are many substantial differences, these should be seen in light of changing modes of citizenship, and the discursive nature of sovereignty as expressed in the digitised environment. The consequential linkage of the analogue sovereign and the discourse of digital sovereignty is the Invisible Empire.

The Invisible Empire weakens the sovereignty of the individual Nation State by creating trans-national power structures and transcending borders. It exhibits expansionist behaviours, spilling outwards in both space and population, and it sweeps across the domain of multiple Nation States. The discursive nature of digital sovereignty – and digital citizenship – alongside the differences imposed on notions of time space and identity in a digitised environment, ensures the Invisible Empire is

a different manifestation to its analogue predecessors. Theorizing this cultural formation is further complicated by its coexistence in time – and space – with a period of American dominion in the world that often causes the Digital and American Empires to conflate in people's minds. This however is not necessarily the case, although they do dialogue. In order to better illustrate how the current state of play came to be, it is necessary to examine what has gone before, by tracking the history of empire, alongside modes of citizenship through time.

The History of the Analogue Empire

While there have been many empires throughout history and across the globe, this analysis provides a focus on Europe and western culture as this provides much of the cultural and political landscape from which the Internet has evolved. The concept of empire, as distinct from that of the Nation State, describes an entity that holds control over a number of territories. Empires involve a projection of power: military, economic, and social. An empire also implies an unequal relationship between the authority and power at the core and the colonised and disempowered territories at the periphery. As Polybius conveys,

Formerly the things which happen in the world have no connection amongst themselves. But since then all events have a common bundle (sic.)³

Polybius was writing of the rise of the Roman Republic in 200 BC. The Empire of Rome existed prior to the modern understanding of the Nation State by more than 1500 years. However the concept of citizenship was central to the Empire, stemming from the time of the Roman Republic, when such citizens were able to determine

³ Polybius, *Universal History*. as cited in R. Roberson, 'Mapping the Global Condition: Globalisation as a Central Concept', M. Featherstone (ed), *Global Culture: Nationalism, Globalisation and Modernity*. London: Sage, 1990.

who ruled them via election. Within the Empire, citizenship was either Roman or no consequence. The Empire had readily borrowed from the previous Greek and Athenian culture that had been dominant in the Mediterranean region, but evolved its citizenship to be much more widely interpreted across Empire than the Greek city-state. The Roman Empire brought with it its technology, learning and language to the areas it conquered and colonised. Over time, implanted on these peripheral colonies is the imprint of the core, of Roman culture. The transformation of the Greek papyrus scrolls in the Library of Alexandria to parchment codices of Latin is perhaps one of the earliest examples of changing both hardware and software platforms.

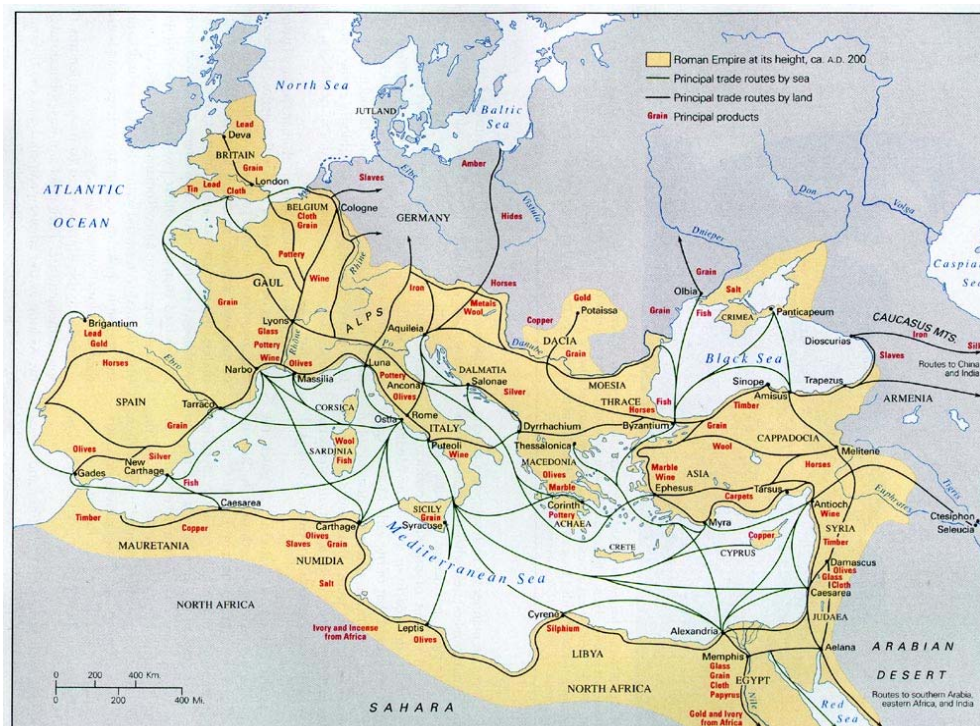


Figure 74
The Roads of the Roman Empire

http://college.hmco.com/history/west/mosaic/chapter3/mckay184_map_large.html
[accessed 8.4.2004]

While Roman language and culture provided those colonised with education, learning and libraries, the foundation of the Empire was the military and trade. The Empire was centred on the Mediterranean Sea, yet much of this trade was based on

the road network. Similarly this network was used to move troops rapidly around the Empire. The military camps that guarded the edges of the Roman Empire were designed to be rapidly deployed and reinforced by road should crisis arise.⁴

Civis Romanus sum – I am a Roman Citizen.

Initially Roman citizenship was a privilege reserved for those born in the city of Rome itself. As the power of the city grew it conquered all of Italy, the people of the newly conquered lands were not citizens of Rome, but rather referred to as Latin Communities. In 91 BC. this group revolted and part of the settlement of that revolt was the granting of citizenship to these people. As the Empire grew, Rome set up colonies of Roman Citizens in lands it acquired, often consisting of ex-soldiers who were granted land as reward for their service.⁵ This served to spread Roman custom and culture to these areas. In 14 AD., the Roman census under Augustus recorded 4,937,000 Roman citizens throughout the Empire,⁶ of which less than one million lived in the capital, with majority spread throughout the Empire. From time to time Emperors would grant citizenship to specific individuals, and sometimes entire communities. In AD. 212 the Emperor Caraculla granted citizenship to the freeborn population of the whole Empire.

⁴ 'The Next American Empire', *The Economist*. 18th March 2004.

http://www.economist.com/world/na/displayStory.cfm?story_id=2517421 [accessed 9.4.2004].

⁵ The word colony comes from the Latin *colonus*, meaning farmer.

⁶ W. S. Davis (ed), *Readings in Ancient History: Illustrative Extracts from the Sources*. Boston: Allyn and Bacon, 1912-13, Vol. II: Rome and the West, pp. 166-172.

<http://www.fordham.edu/halsall/ancient/14resgestae.html> [accessed 21.6.2005].



Figure 75

The Roman Empire at its height

http://www.economist.com/world/na/displayStory.cfm?story_id=2517421

[accessed 8.4.2004]

The Roman Empire contained a pre-Nation State mode of citizenship, one that was not bound in space. Roman citizens were free to travel throughout the Empire, enjoying the privileges that citizenship brought with it. Citizenship was tied to the whole Empire, rather than any nation that made up a part. While Rome encountered other city-states with their own understanding of citizenship, notably in Greece, the ‘other’ by which Roman citizenship defined itself was to be a non-citizen, rather than a citizen of another place.



Figure 76

Roman Legionnaires

<http://www.vroma.org/~bmcmanus/romanarmy2.html>

[accessed 17.1.2005]

The early empires were geographically continuous⁷ and made colonies of their neighbours so that one could walk from the edge of empire to the core and pass only through the imperial territories. This was a necessary function of the place of a well equipped and ordered mass of soldiers in asserting the military power of these empires. The space occupied by the empire was continuous. The periphery and core were spatially determined by literally the distance from the seat of power to the frontier borders. There was a lag in time between communication and action, as written correspondence would have to be carried from sender to recipient across the territory that separated them.⁸ Within the empire, information moved as fast as all other commodities and literally passed through the intervening territory between

⁷ R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001, p. 15.

⁸ For Innis this spatial bias of communications technology explained the expansion of empires from Rome through to Britain. H. Innis, *Empire and Communication*. Toronto: University of Toronto Press, 1950.

sender and recipient. The spatial continuity of empire meant that the identity of the core was relatively unproblematic. The centre of power and the ruling elite were at the core of empire, and while it was unlikely that each citizen of empire would have been able to have access to the emperor, or even know what they looked like, the extent of their authority and location of their court were easily established.

While the Roman Empire had its own pantheon of gods and goddesses over time it came increasingly under the influence of Christianity. Emperor Constantine became the first Christian emperor in 324 AD. Constantine was able to transform Christianity from a subversive discourse potentially critical of the Empire into a discourse bound into the ruling structures of Empire.⁹ In 40AD there were 1000 Christians (0.0017% of the population of the Roman Empire), by 350AD there were 34 million (56.6% of the population of the Roman Empire).¹⁰ The residue of the Empire, and the influence of Christian religion, and more specifically Catholicism, had a profound effect on Western Europe, with the majority of the countries ex-colonies of Rome, or those that existed at its borders. One of the signatories to the Peace of Westphalia still bore the title of the Holy Roman Emperor, although by that time the Empire had long since ceased to be. All empires leave a trace, framework and history for the next empire. This residue is also evident in technology. Each new structure is described and informed by that which preceded it.

⁹ G. P. Baker, *Constantine the Great: And the Christian Revolution*. New York: Barnes and Noble, 1967.

R. M. Grant, *Augustus to Constantine: The Thrust of the Christian Movement into the Roman World*. London: Collins, 1971.

A. Jones, *Constantine and the Conversion of Europe*. London: English University Press, 1949.

¹⁰ R. Stark, *The Rise of Christianity: How the Obscure, Marginal Jesus Movement Became the Dominant Religious Force in the Western World in a few Centuries*. San Francisco: Harper Collins, 1997 as cited in J. Meacham, 'From Jesus to Christ: How did a Jewish prophet come to be seen as the Christian saviour? The Epic story of the empty tomb, the early battles and the making of a great faith', *Newsweek*. March 28th 2005. <http://www.msnbc.msn.com/id/7244999/site/newsweek/> [accessed 24.3.2005].

The fracture of the dominance of the Catholic Church in Europe in the face of the reformation in the sixteenth century lead to a period of war and instability that resulted in the signing of the Treaty of Westphalia and the birth of the modern understanding of the Nation State, and with it a new mode of citizenship. While this Treaty dealt specifically with European countries, in the following 250 years the concept would be exported to the rest of the world through European colonialism, as one of Rome's former colonies went on to become an empire in its own right more than one thousand years later.



Figure 77
British Imperial Bases, 1898

http://www.economist.com/world/na/displayStory.cfm?story_id=2517421
[accessed 8.4.2004]

It was said – quite accurately – that the sun never set on the British Empire. Its possessions spanned the globe. In 1909, the Empire encompassed 20% of the world

land area, and 23% of its population.¹¹ While in absolute terms the Empire far exceeded the power and size of Rome before it, in relative terms, it did not have the unrivalled power of Rome. Britain was the first industrial power, but by 1900, it was rivalled economically by both Germany and the United States, however the strength of the British Empire was in shipping and finance.

Like Rome before it, the British Empire sent citizens from its core to administer and in some cases populate the periphery in the colonies. This population then served as an example of the culture and indoctrinated the 'natives' in what it meant to be British and a part of Empire, much as the Romans had spread Roman culture through their colonies. The Empire spread its understanding of culture, government and sport throughout its colonies. Critically, like the Romans before them, the British Empire spread the language of the colonisers throughout the colonies by using it as the vocabulary of administration. As with the Roman Empire, this spread of language was to prove one of the critical residues that the British Empire would leave in its wake.¹²

11 K. L. Ross, 'The Sun Never Set on the British Empire "Dominion over Palm and Pine"', *Proceedings of the Friesian School, Fourth Series*. <http://www.friesian.com/british.htm> [accessed 9.4.2004].

12 It is estimated by the British Council that within ten years three billion people will speak English. The dominance of English as a global language has resulted in a situation where currently non-native speakers outnumber native speakers by a three to one ratio. C. Power, 'Not the Queens English', *Newsweek International*. March 7th 2005 <http://www.msnbc.msn.com/id/7038031/site/newsweek> [accessed 13.3.2005].

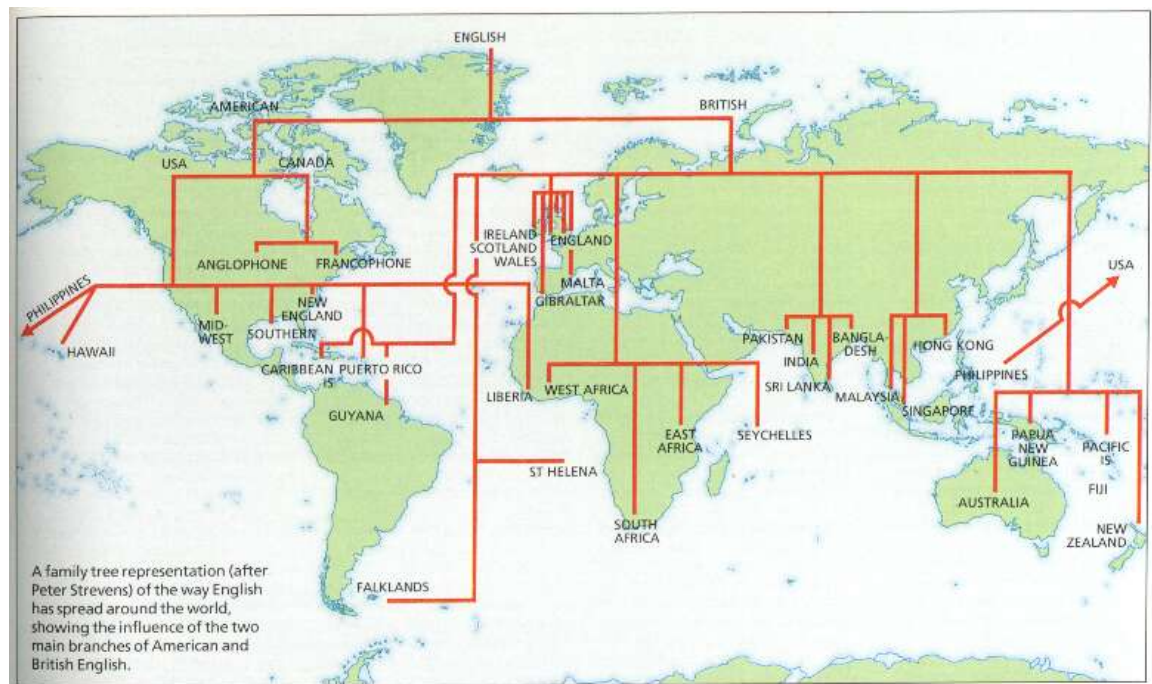


Figure 78

The Spread of English

http://www.sterlingtimes.org/memorable_images36.htm

[accessed 2.5.2004]

The British Empire substituted Rome's roads with its shipping lanes, and Rome's Armies with the British Navy, consisting of long range, powerful ships. Each empire builds on the structures of the former empire. The Nation State as it developed out of the Treaty of Westphalia, required that the world be divided up along these lines, barriers and divides had to be defined in order to determine the new Nation State based mode of citizenship. When a place is colonised or 'discovered', the act of naming is an act of control. Britain understood this process and used it skilfully. Identity is determined and finds its borders by what it is not.¹³ The Nation State, and the mode of citizenship, it embodies requires the development of borders for 'otherness'. The relatively large number of nations that still display the Union Jack on their flags is testament to the spread of the Nation State under this Empire. By the

¹³ E. Balibar, *Politics and the Other Scene*. London & New York: Verso, 2002.
H. K. Bhabha, *The Location of Culture*. London & New York: Routledge, 1994.

outbreak of hostilities in the First World War, European powers occupied or controlled nine tenths of the land on Earth.¹⁴ As Lenin noted in 1916, 'For the first time the world is completely divided up, so that in the future only redivision is possible'.¹⁵ Presumably those subject to being 'divided' in the periphery might not have concurred.

The British Empire was able to use the relatively new political formation of the Nation State as an administrative vehicle and a way of limiting liability to its colonies. Thus while the Empire would mine away all the natural resources, it was then the responsibility of the Nation State to provide for its citizens. Rather than grant the Indians British Citizenship, Queen Victoria, the Queen of England was made the Empress of India. While India might have been an integral part of Empire, there was no corresponding 'Roman' citizenship. This concept was now tied to the nation, and this mode of citizenship came to dominate the world's political structure.

¹⁴ R. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001, p. 2.

¹⁵ V. I. Lenin, *Selected Works*. London: Lawrence and Wishheart, 1968, p 223, as cited in R. Young *Postcolonialism, An Historical Introduction* Oxford: Blackwell Publishers, 2001, p. 2.



Figure 79

Peter Pett and the 'Sovereign of the Seas' by Sir Peter Lely

<http://www.nmm.ac.uk/mag/pages/mnuExplore/PaintingDetail.cfm?letter=P&ID=BHC2949>

[accessed 17.1.2005]

The British Empire consisted of both colonies that were formally controlled from the core of Empire, such as Australia, and also countries on the periphery of Empire where such formal political control was not present but that were none the less bound to the Empire economically. Argentina is a good example of this latter type of informal colony. These economies (bound within their own Nation State formations), like those under formal colonial rule, were geared to both provide raw materials for the Empirical core in Britain, and also as markets for the export of the value added manufactured goods that came from those raw materials. In the analogue environment, the periphery is always present in the core through trade. Raw produce is exported from the periphery to the core, processed, and then re-exported, value

added, back to where it came at greater cost, further extracting wealth from the periphery and towards the core.

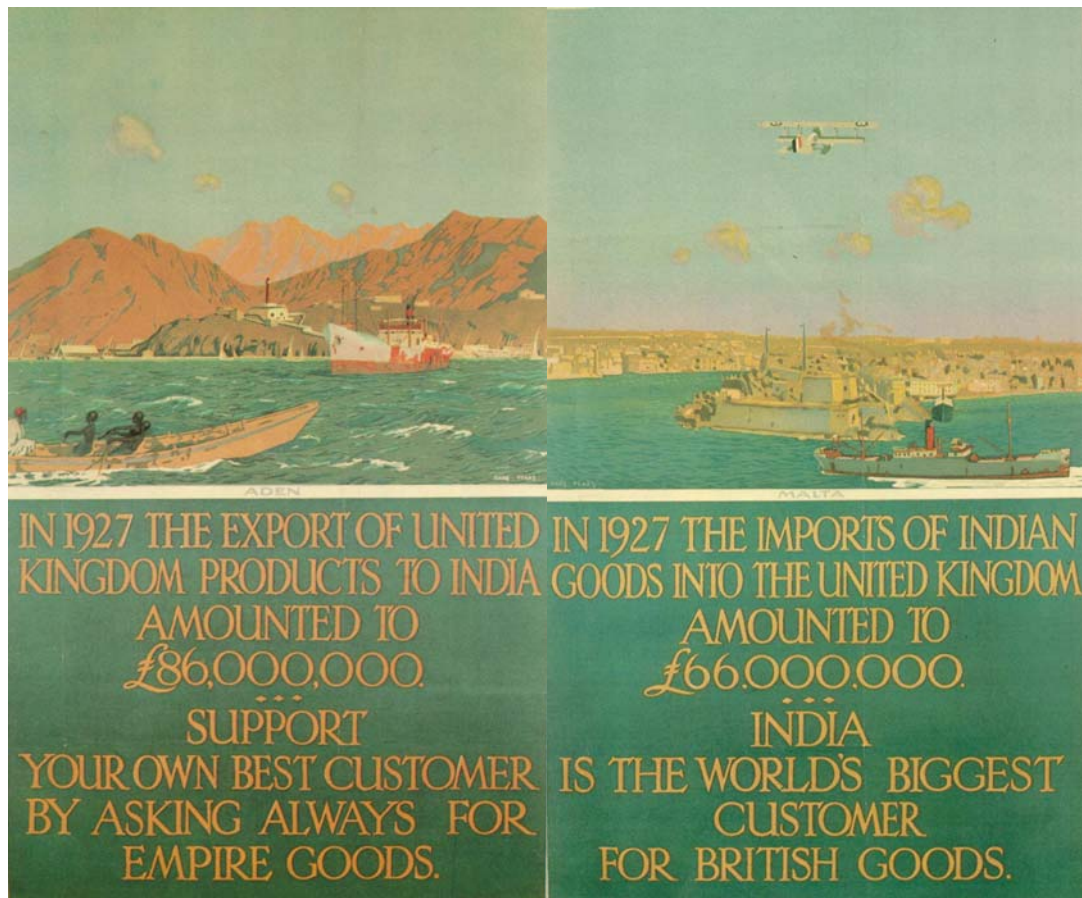


Figure 80
Advertising Posters from the Empire Marketing Board, May 1928

The British Empire and its contemporary European colonial powers represented a new type of empire, the development of naval power meant that colonies were no longer required to border on the core. While the sun never set on the British Empire, this was the case due to the dispersed nature of that empire throughout the globe rather than it spanning a totally of the worlds circumference. In the initial phases of the European colonial period communication was limited to the speed at which these ships could physically carry word between the empires dislocated territory, however at the height of the British Empire, binary information transported through the telegraph via Morse Code revolutionised both the speed and corporeality of

communication. Information no longer had to traverse the distance between its origin and point of delivery like any other commodity, it began to transcend the analogue world. Messages could be rapidly relayed between the periphery and core, and all nodes in between. As the dislocation of both the possession of territory and communication between those spaces becomes greater, the construction of what is the core, and what is the periphery becomes further abstracted. While the identity of the core remained well established and enforced through colonial settlement and administration, its physical presence and marking existed now only at the core. For the periphery the core was across the sea and out of sight or experience, except through the obvious locally situated colonial apparatus, the institutions and political concepts of the coloniser for those subjects. The British colonies, without independent access to the technology of transport and communication derived from the core, could travel to the seat of empire only through the utilisation of the technology of their colonial masters. A place can be claimed and named, but creating a meaning and mode of communication is much more difficult.

Within the British Empire, the identity of the occupying coloniser and the colonised became further problematised and fragmented as the local governing structures became staffed by local people, using the colonial language of governance, in this case English, but mirroring Latin and Greek before it. Similarly the periphery starts to reinterpret the core within the periphery through not just accepting the colonisers sport, religion and education, but actively reinterpreting it.



Figure 81
Maori Christ walking on the water of Lake Rotorua – lakeside Anglican Church
http://www.hnlc.org.au/rensford/current_issues.htm
 [accessed 15.3.2005]

In Aotearoa/New Zealand, Christ is depicted in the Lakeside Anglican Church dressed in the fashion of a Maori chieftain in an etching on the church window that produces the image of Jesus walking across the waters of Lake Rotorua. Maoritanga – Maori culture – translates and negotiates a relationship between imposed religion and the indigenous landscape.

This complexity is then further enhanced when different areas of the periphery started to interface. Troops used to enforce the power of the core at the periphery of empire begin to derive their origin from other areas of the periphery. In some cases these troops were derived from colonial settlers, such as the Australian troops fighting in the Boer War, but they also derived from indigenous colonised people. The Maori battalion at Gallipoli during World War I entered into battle for the ridge

at Sari Bair with the traditional war cry ‘Ka mate, ka mate! Ka ora, ka ora.’¹⁶ This time employed fighting as a contingent of, rather than against, the armies of the British Empire. Fighting in the same conflict, but from another place in the periphery of empire Gurkha soldiers from India fought alongside Lawrence of Arabia. The British army maintains this colonial tradition today with the more than 3000 Nepalese Gurkhas still serving in the former colonial power’s military.



Figure 82
Gurkha Soldiers, 1896
<http://en.wikipedia.org/wiki/Ghurka>
[accessed 22.3.2005]

The power of the colonisers is washed from the coloniser’s identity, as the colonised begin to fill the role of administrators of colonial power and provide the military power required to maintain that authority. The sovereign can only be physically present to a small number of their subjects at any one time, this was true for the Emperor of Rome as it was for Queen Victoria. As the periphery is removed further from the core, and the sovereign becomes an absent crown, the King or Queen’s authority resides in the symbols of empire, from the Union Jack on the flag to the

¹⁶ W. Gardner, *Te Mura O Te Ahi: The Story of the Maori Battalion*. Auckland: Reed Books, 1992.

regimental crest. The understanding of the colonial process and its agents are difficult to discern, with the colonised themselves undertaking the administration and enforcement of the process under the supervision of a picture of some distant monarch on the wall of the post office and the garrison.

These structures, reinterpreted and appropriated by the locals, then formed the basis of resistance to colonisation. Following the decolonisation process that occurred following World War II the newly postcolonial states were then left locked into those same structures.¹⁷ This state Spivak labelled *catagoresis*, a space that the postcolonial does not want and yet still must inhabit.¹⁸

A situation of the postcolonial subject is that he or she has to inhabit the conceptual cultural and ideological legacy of the colonisation inherent in the very structures and institutions that formed the condition of decolonisation.¹⁹

While the decolonising process provided a certain level of emancipation for those formerly colonised, it can also be seen as a process of merely replacing the portrait of King George V of England with that of the new president, and in the many former colonies that retained the British monarchy, even the King's portrait remained in place. Postcolonial theorists argue that while the formal end to colonial possession may have made a country nominally independent, it is still subject to external domination, an instance of being neo-colonial, rather than postcolonial. Dag Herbjørnsrud noted that the speed with which European colonial rule collapsed left many former colonies ill prepared for their new found independence. Having dominated India for 200 years the British Empire removed itself from the continent

¹⁷ J. Derrida, *Writing and Difference*. Translated by Alan Bass. London: Routledge, 1978.
P. Chatterjee, *National Thought and the Colonial World: A Derivative Discourse*. London: Zed Books, 1986.

¹⁸ G. C. Spivak, *Outside in The Teaching Machine*. London: Routledge, 1993.

¹⁹ G. C. Spivak, *Outside in The Teaching Machine*. London: Routledge, 1993.

in seventy two days during 1947. As he astutely notes the former European empires are now as a result 'the black man's burden.'²⁰

While the British and Roman Empires serve to illustrate the role of empire, and its relationship to different modes of citizenship, the current world hegemony of the United States, is also often referred to as the American Empire,²¹ despite protestations from the United States that this is not the case.²² As illustrated President George Bush in the Graduation Address to the West Point Academy June 2002:

America has no empire to extend or utopia to establish. We wish for others only what we wish for ourselves – safety from violence, the rewards of liberty, and the hope for a better life.²³

While the sun never set on the British Empire, the American Empire operates 24/7. Many date this empire building back to the end of the Second World War,²⁴ although America 'inherited' Spain's former overseas colonies following the Spanish-American War in 1898. However there has been a change in the behaviour and activities of the United States since the terrorist attacks of September 11 2001 that point to a changing approach to citizenship and empire within this structure. While it is true that subsequent to World War II the United States had a global reach and domination, at this time, and throughout the Cold War, its power was challenged by the Soviet Union. The threat of nuclear war during this period bound both of these

20 D. Herbjørnsrud, 'Original axis of Evil: Colonial Empires', *Aljazeera.net* 5th April 2005. <http://english.aljazeera.net/NR/exeres/972FFE74-F7DE-44F0-AB5E-92B47BBDADE7.htm> [accessed 6.4.2005].

21 'The Next American Empire', *The Economist* 18th March 2004.

http://www.economist.com/world/na/displayStory.cfm?story_id=2517421 [accessed 24.4.2004].

22 'The existence of an American empire is no secret. It is widely, even universally, recognised in most parts of the world, though traditionally denied by the powers that be in the United States', J. B. Foster, 'Imperial America and war', *Monthly Review*. May 2003, volume 55, number 1. <http://www.monthlyreview.org/0503jbf.htm> [accessed 25.5.2004].

23 J. Marcus, 'America: An empire to rival Rome?', *Age of Empires*.

<http://news.bbc.co.uk/2/hi/americas/3430199.stm> [accessed 2.5.2004].

24 'US Military Bases and Empire', *Monthly Review*. March 2002, volume 53, number 10.

<http://monthlyreview.org/0302editr.htm> [accessed 25.5.2004].

E. Said, *Human and Democratic Criticism*. New York: Columbia University Press, 2003, p. 34.

powers to a mutual understanding of the sovereign Nation State, and the mode of citizenship it embodies. Each side acknowledged the other's sphere of influence in the world consisting of groups of client Nation States, brinkmanship created limitations and boundaries.

Subsequent to the end of the Cold War and the collapse of the Soviet Union as a rival hegemon, the United States continued to embrace this understanding of sovereignty. The first Gulf War being fought specifically in defence of the sovereign Nation State, as manifest by the State of Kuwait. Subsequent to this any military involvement by this power most often involved the use of air power in preference to all other measures, continuing the development from the Roman Army, through to the British Navy, with the United States Air Force.²⁵ With each manifestation, the speed, distance, and magnitude at which force can be applied is multiplied, while the threat to the assets of the empire, in terms of lives and economic resources is reduced. This acceleration is also evident in communications and transportation generally, as Paul Virilio described it, the 'acceleration of culture'.²⁶ The fact that this acceleration, and the development of the American global hegemony, track each other through time from World War Two further serves to conflate the Digital and American Empires in people's understanding.

²⁵ This can be seen in Serbia in 1999, the original attacks on Al Quaida bases in Afghanistan in 1998, and once again in Iraq during this period.

²⁶ S. Redhead, 'Accelerated culture: Paul Virilio and the history of the present', Video Recording of *Pub Talk* forum, Murdoch University School of Media Communications and Culture, 30th May 2002.



Figure 83
F18 Hornets of The United States Air Force
<http://www.a4project.org/graphics/f18.jpg>
 [accessed 5.4.2005]

Subsequent to September 11 2001, possibly in response to a perceived threat that exists outside of the Nation State framework, the United States has begun to embrace a more Roman understanding of sovereignty and citizenship, where its own is recognised, but those that fall outside of this Empire are not. This would be consistent with its position alongside Rome as the unchallenged hegemonic power of its day. While unlike Britain and Rome, the United States does not hold many nations as formal colonies. The reach of the United States economy, and its impact on global society, means that it does in effect act as an empire. As Eric Hobsbawm notes:

One might even say that in its assertion of total US supremacy over the western hemisphere it was too ambitious to be confined to colonial administration over bits of it.²⁷

Prior to the collapse of the Soviet Union the United States had worked as a dominant force within multilateral institutions such as the United Nations, these organisations are grounded on the principles of sovereignty of the Nation State, tracing back to The

²⁷ E. Hobsbawm, 'Preface', in V.G. Kiernan, *America: The New Imperialism: From White Settlement to World Hegemony*. New York: Verso, 2005.

Peace of Westphalia. As the United States moves further from this understanding of sovereignty, the position of these institutions becomes sidelined.



Figure 84

United States Military Deployment

http://www.economist.com/world/na/displayStory.cfm?story_id=2517421

[accessed 8.4.2004]

The US takes the British model for the Nation State as a site of colonial exploitation further. Rather than having the responsibility of being a colonial power, those at the periphery are merely exploited economically, and other than that left to their own devices. As Michael Ignatieff, Professor of Human Rights Policy at Harvard University, has stated:

America's empire is not like empires of times past, built on colonies, conquest and the white man's burden... The 21st century imperium is a new invention in the annals of political science, an empire lite, a global hegemony whose grace notes are free markets, human rights and democracy, enforced by the most awesome military power the world has ever known.²⁸

While the American Empire's domination of media, finance and culture within its periphery is sizeable,²⁹ this system still requires that the threat of violence be maintained, hence the global reach and dominance of the United States Military. Civil society as a mechanism for control is, in some cases, proving to be insufficient

²⁸ M. Ignatieff, 'The Burden', *New York Times Magazine*. 5th January 2003.
<http://www.mtholyoke.edu/acad/intrel/bush/burden.htm> [accessed 15.6.2005].

²⁹ Z. Sardar & M. Davis, *Why do People Hate America?* Cambridge: Icon, 2004.

in some peripheral areas of Empire, and as this control mechanism breaks down, the military is increasingly stepping in to maintain hegemonic dominance.

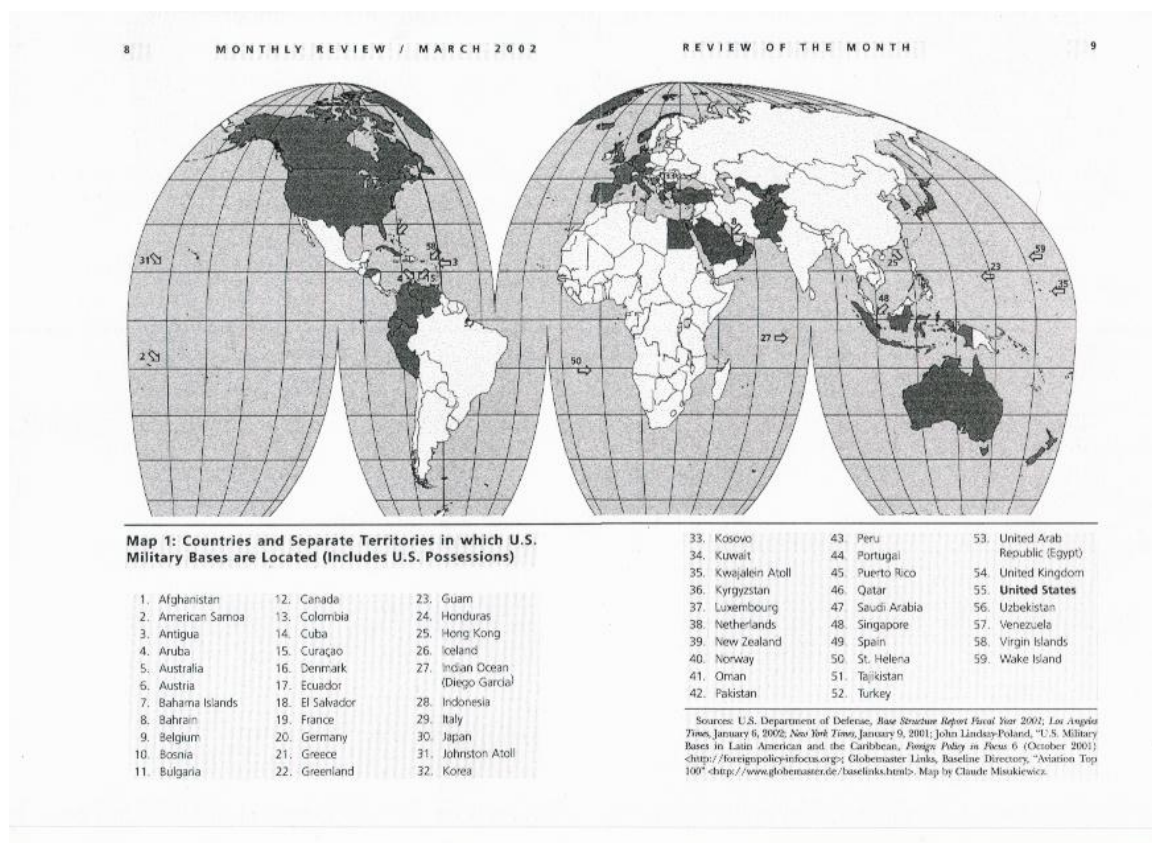


Figure 85
Location of United States Military Bases
<http://www.monthlyreview.org/0302map1.pdf>
 [accessed 8.4.2004]

Colonialism is a term most associated with the political rule and material conditions generated by European colonial powers. This is contrasted with imperialism, which is more closely identified with the ideology and system of economic domination identified more recently with the United States.³⁰ While the two terms are often used almost interchangeably, there are subtle differences. Colonialism takes place at the

³⁰ R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001, pp. 26-27.

periphery out of sight, and under only limited control of the core. Imperialism on the other hand is a process that is driven from an ideology of the core. It has been argued that while it is possible to talk of the postcolonial, it has been argued that history is yet to reach the post-imperial.³¹ There is a complex and often overlapping border between these different conditions reinterpreted through different prisms of time space and identity.

The Empire of the United States of America maintains few formal colonies, although formerly it has been a major colonial power, having inherited many of the Spanish colonial 'possessions' after the Spanish-American war in 1898, including the Philippines, Cuba and Puerto Rico. This put the United States in a unique position relative to its fellow European colonial powers in that it was both a former colony, and a colonial power of its own. However the temporal United States maintains only a small number of formal colonies.³² Rather its rule, which often manifests to replace the former domination of European colonial powers, takes the form of neo-colonialism.

The dominion of the United States breaks down the former understanding of identity and space that were associated with colonial rule. Rather than sustaining control of a country through a garrisoned military force and its own administration it rather dominates the politics and economy of its many colonial possessions through the use of global trade and information exchange. As Kwame Nkrumah describes it:

³¹ D. Becker & R. Sklar (eds), *Postimperialism and World Politics*. Westport: CT Praeger, 1999. D. Becker, J. Frieden, S. P. Schatts, & R. L. Sklar, *Postimperialism: International Capitalism and Development in the Late Twentieth Century*. London: Lynne Rienner, 1987.

³² The afore mentioned Puerto Rico remains as a United States ruled commonwealth along with a handful of other colonial possessions formerly held as such by the United States in the Pacific.

neo-colonialism is also the worst form of imperialism. For those who practice it, it means power without responsibility and for those who suffer from it, it means exploitation without redress.³³



Figure 86
World Bank headquarters in Washington, D.C
<http://www.publicintegrity.org/water/report.aspx?sID=ch&rID=49&aID=49>
[accessed 5.4.2005]

Without the formal military and administrative control of a colony by a coloniser it becomes more problematic to form resistance against the resulting exploitation, one of the key features associated with neocolonialism. As Naomi Klein describes the contemporary neo-colonial condition:

Few ideologues can resist the allure of a blank slate--that was colonialism's seductive promise: 'discovering' wide-open new lands where utopia seemed possible. But colonialism is dead, or so we are told; there are no new places to discover, no *terra nullius* (there never was), no more blank pages on which, as Mao once said, 'the newest and most beautiful words can be written.' There is, however, plenty of destruction--countries smashed to rubble, whether by so-called Acts of God or by Acts of Bush (on orders from God). And where there is destruction there is reconstruction, a chance to grab hold of 'the terrible barrenness,' as a UN official recently described the devastation in Aceh, and fill it with the most perfect, beautiful plans.

'We used to have vulgar colonialism,' says Shalmali Guttal, a Bangalore-based researcher with Focus on the Global South. 'Now we have sophisticated colonialism, and they call it 'reconstruction.'³⁴

³³ K. Nkrumah, *Neo Colonialism: The Last Stage of Imperialism*. London: Thomas Nelson and Sons Ltd, 1965, p. xi.

³⁴ N. Klein, 'The Rise of Disaster Capitalism', *The Nation*, 2nd May 2005.
<http://www.commondreams.org/views05/0415-30.htm> [accessed 4.5.2005].

Both Afghanistan and Iraq-based incursions have demonstrated the United States is increasingly also prepared to engage in military domination, with garrisons of troops and US appointed administration.³⁵

One of the Roman Emperor Caligula's favourite sayings was *Oderint dum metuant* – let them hate as long as they still fear.³⁶ Rome maintained control over its colonies through force of arms, by the garrisoning of troops to enforce the will of the centrally appointed local governor. The British used local people to maintain the peripheral empirical structure that shared no physical border with the core. The neo-imperialism of the American Empire follows this trajectory and takes a far more subtle approach to domination, which is both less obvious and at the same time harder to resist. Antonio Gramsci describes this development as the move from political control to one of civil control, where the colonised internalise their situation to the point where it is no longer necessary to enforce the acceptance of the exploitation of empire, it becomes an enshrined practice within individuals, and within a nation's laws and practice.³⁷

The Roman Empire took generations to contract. By contrast, the British Empire vanished over a relatively brief period, following the Second World War. Each new empire has a half-life of success and survival proportionate to the time it takes to

35 The Administration of L. Paul Bremer III in Iraq in 2002-2003 while very much in the mode of colonial governors from empires of the past, was also significantly different, if only in frame of time in that it passed formal government, if not power, back to the local people.

36 The quote is originally from the Latin play *Atreus* by Lucius Accius. John Bradley Kiesling famously used the phrase to question the direction of the foreign policy of the United States in his resignation letter to then secretary of State, Colin Powell on March 7th 2003, asking if it too had become the motto of American foreign policy.

P. Krugman, 'Let Them Hate us as Long as they Fear', *New York Times*. 27th February 2003.

37 A. Gramsci, 'State and Civil Society', *Selections from the Prison Notebooks*. New York: International Publishers, 1971.

reach full expansion. This is a function of the effective shrinking nature of space as communications and transportation technology develops.

In each of these manifestations of the colonial process, the trend is for the core of empire to move further away, both in space and perception, and for its identity to become further abstracted. A provincial citizen of Rome had direct walking contact, and a geographic relationship to the coloniser, or at least to the neighbouring colony. Within the British Empire the colonisers would normally arrive by sea from a core unseen and unexperienced by the colonised. In the context of the United States manifestation of neo imperialism it is not at first obvious that the imperial agent is present at all. An individual may indirectly own shares through their superannuation in a company causing pollution that adversely effects their health and environment, they can be both exploited and exploiter, the colonised and the coloniser, and not aware of their place in the process. Within this structure there is little room for actualising resistance, the individual is implicated in the injustice, but with no mechanism for resistance. The colonised subjects of Europe reinterpreted the structure of the Nation State that had been enforced on them by their colonial oppressors as a site of resistance. Within the current globalised capitalist neo-imperialist environment the power of the Nation State is being eroded, as is its potential to provide a vessel for resistance to this process. Bauman notes that the Nation State as a formation is:

In a state that is no longer a secure bridge leading beyond the confinement of individual mortality, a call to sacrifice individual well being, let alone individual life, for the preservation or the undying glory of the state sounds vacuous and increasingly bizarre, if not amusing. The centuries-long romance of nation with state is drawing to an end; not so much a divorce as a 'living together' grounded in unconditional loyalty. Partners are now free to look

elsewhere and enter other alliances; their partnership is no longer the binding pattern for proper and acceptable conduct.³⁸

In this context the Invisible Empire manifests as a structure that is markedly different from what has gone before, yet at the same time can also be seen as an extension of the increasingly fragmented and abstracted core, periphery and the space that manifests between the two in current (post) colonial relations.

The Invisible Empire

The rise of the Invisible Empire is often seen as synonymous with the rise of the American Empire, this is however an erroneous linkage. While the Internet was developed in the United States, as Rushkoff notes, so was the commercial use of electricity.

The Internet is no more American than electricity. It may have been invented here, but electrons have no national allegiance.³⁹

That is not to say the United States does not have a great influence on the content and operation of the Internet. The American Government was able to turn off the Internet domain suffix for Iraq, .iq, before the recent invasion of that country, and could potentially do the same to any other countries domain including Australia's .au.⁴⁰ While all countries have one of these domain name suffix, the United States has none, just as British postage stamps alone did not have a name placed for the country of origin, so to the US as a place of origin is the unmarked sign of the

³⁸ Z. Bauman, *Liquid Modernity*. Cambridge: Polity Press, 2000, p. 185.

³⁹ D. Rushkoff, 'Americaphobia and the Engineered Fear of Progress', paper presented at *The Conference on the Internet and Society*. Harvard University, 28-31 May 1996. <http://www.aec.at/meme/symp/panel/msg00091.html> [accessed 9.4.2004].

⁴⁰ The United States Government recently announced that it would not be handing over control of the domain name system to ICANN, which had previously been planned to occur in September 2006, due to national security concerns.

D. Morgenstern, 'Feds Won't Let Go of Internet DNS', *EWeek.Com*. 1st July 2005. <http://www.eweek.com/article2/0,1895,1833928,00.asp> [accessed 3.7.2005].

Invisible Empire.⁴¹ The United States Empire has left its residue of vocabulary, ideology and grammar for the Invisible Empire, if for no other reason than it was the environment inhabited by almost all of the early adaptors, when the codes and interfaces were first delivered. The US economy was still responsible for 47% of all electronic commerce in 2004,⁴² and while the language of the Internet is changing, English still makes up more of the online population than any other language by a significant margin – the code maintains its bias towards Latin script written left to right.

The Invisible Empire, like all empires, builds on the strengths and weaknesses of that which preceded them. All empires provide a template of that which follows. It was during the British Empire that the telegraph (also first commercialised in the United States) was developed, and then followed the trade routes of empire to span the globe as a way of transporting digital messages. The Interface of the Invisible Empire with the off screen world also mirrors much of the old empires, with the Internet used to extract value from India, this time for the use of firms at the digital core of empire. The financial hub of London outsources its accounting and other work to India through the Internet, as does the United States.⁴³ Within Australia there is an

41 The .us domain does exist, but it was reserved for government bodies below the federal level (Federal government bodies were reserved the .gov, with no national signifier) and higher education institutions offering less than a four year degree (once again those offering four year degrees utilised the unmarked .edu domain name suffix, similarly the .mil refers exclusively to the United States Military). In April 2002 the .us domain was opened up to non government entities and individuals within the United States, but has yet to be widely adopted.

P. E. Steinberg & S. D. McDowell, 'Mutiny on the bandwidth: The semiotics of statehood in the Internet domain name registries of Pitcairn and Nui', *New Media and Society*. March 2003, volume 5, number 1.

42 Global Reach, 'Forrester projects 6.8 Trillion for 2004 (\$B)'.
<http://glreach.com/eng/ed/art/2004.ecommerce.php3> [accessed 1.12.2004].

43 I. Basu, 'Feature: India changes world IT outsourcing', *United Press International*. 2nd December 2002.

T. Friedman 'Bangalore: Hot and Hotter', *New York Times*. 8th June 2005.

increasingly rapid move to outsource call centre work for large companies off shore to the periphery. There is something both romantic and gothic about the Invisible Empire built on the shipping lanes of the empires that went before it. As Gayatri Spivak notes:

The idea of the Pax Electronica, coming from the Pax Romana, the Pax Britannica, and the Pax Americana is a very welcome notion when one is not aware of the worm in the rose.⁴⁴

The Internet can even be mapped in a way that is analogous to the earlier empires.

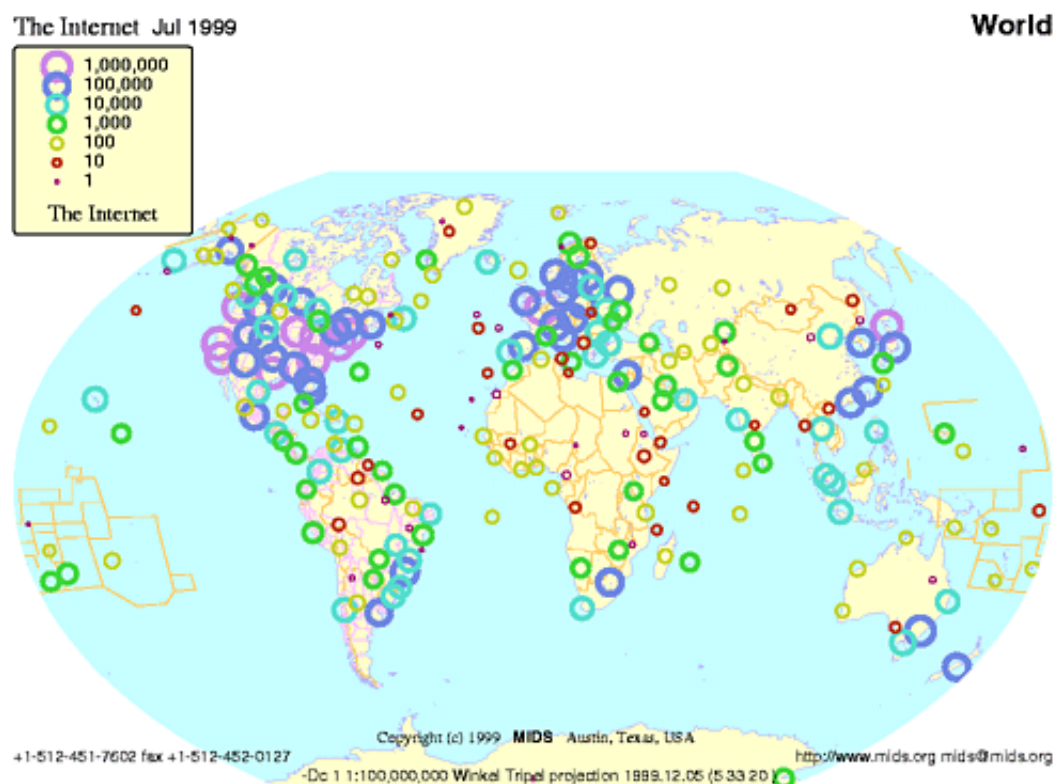


Figure 87
The Internet, July 1999
<http://www.mids.org/mapsale/world/>
 [accessed 8.4.2004]

J. Pulienthuruthel, 'Biff! Zap! Game Coding Comes to India; Software makers are working overtime to turn out games for cell phones', *Business Week*. 6th June 2005.

S. Rai, 'World Business Briefing Asia: India: Outsourcing Said to Rise 34%', *New York Times*. 3rd June 2005.

⁴⁴ G. C. Spivak, 'Pax Electronica: Against Crisis-Driven Global Telecommunications', in G Lovink, *Uncanny Networks: Dialogues with the Virtual Intelligentsia*. London: MIT Press, 2002, p. 77.

As well as just physical connections, this type of spatial map of Invisible Empire can also be used to track literacy. The Internet journal *First Monday* tracks its readership across the globe through space in this map:

World Map of First Monday Readership: Top 50 Countries (2003)

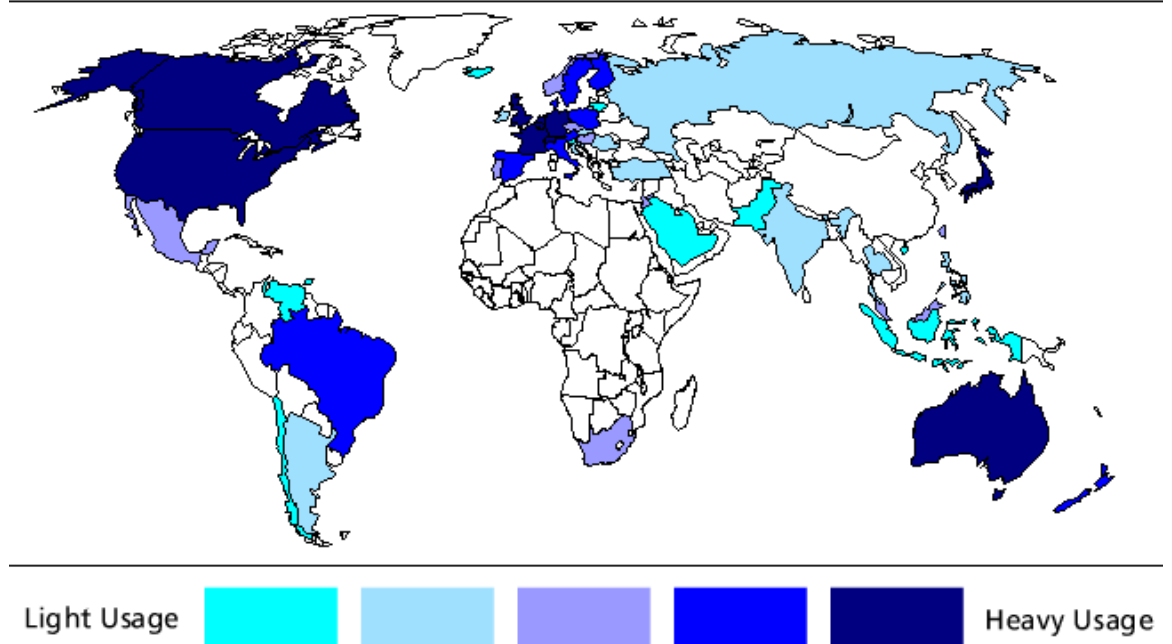


Figure 88
First Monday Readership
<http://www.firstmonday.org/guidelines.html>
[accessed 24.4.2004]

This mode of spatial mapping, with its focus on the off screen environment merely imposes the understanding of analogue empire inappropriately on a digital environment.

Richard Muir described the role of mapping for the traditional analogue empire.

Located at the interface between adjacent state territories, international boundaries have a special significance in determining the limits of sovereign authority and defining spatial form of the contained political regions...Boundaries occur where the vertical interfaces between sovereign

state sovereignties intersect the surface of the earth... As Vertical interfaces boundaries have no horizontal extent.⁴⁵

The Invisible Empire transcends these vertical interfaces. A map more closely representing the Invisible Empire looks more like this:

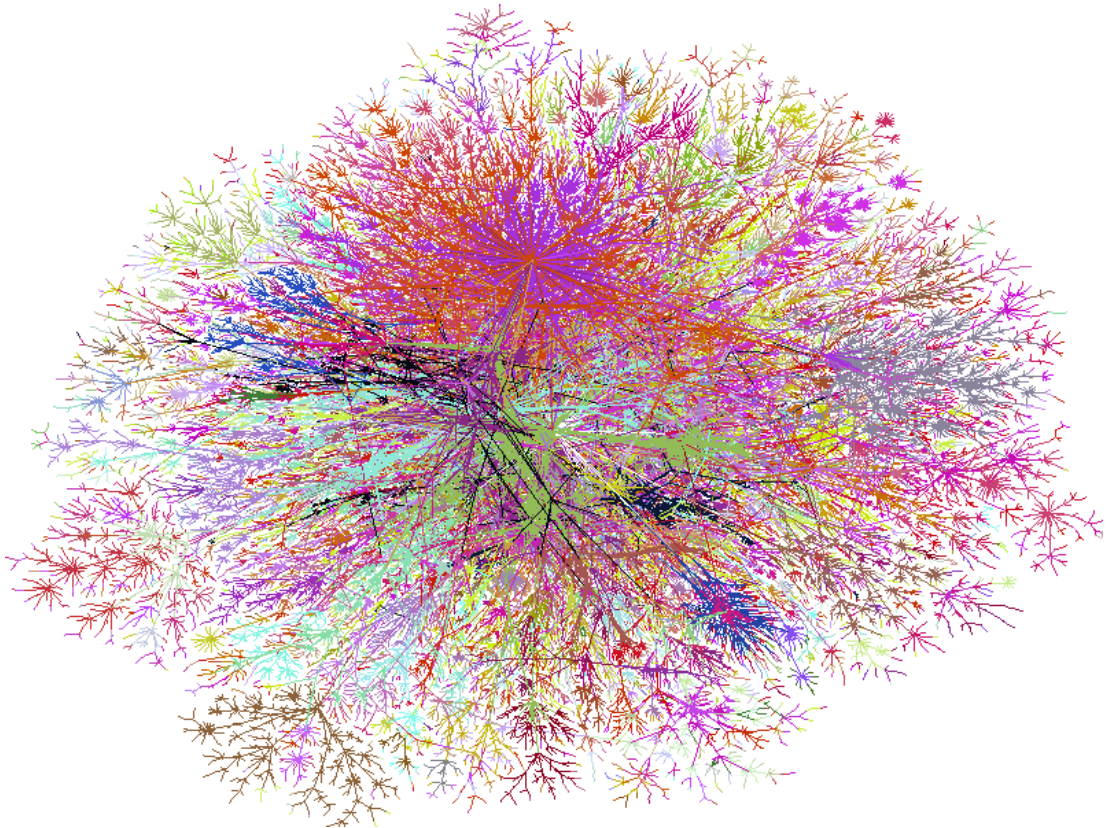


Figure 89
Internet Mapping Project
<http://research.lumeta.com/ches/map/gallery/wired.gif>
[accessed 8.4.2004]

Another method of tracking and mapping this empire continues the spider web of hubs and clusters.

⁴⁵ R. Muir, *Modern Political Geography*. New York: Macmillan 1975, p. 199. As cited in B. Anderson, *Imagined Communities*. London: Verso: 1991, p. 172.

be expected in this new type of environment, attempts at resistance to the type of colonisation that the Invisible Empire embodies require very different strategies than resistance to a traditional colonisation with its understanding centred in the off screen environment. Rather than trying to throw out the colonising influence of the core, the struggle instead focuses on providing the literacy required to 'move' from the periphery to the core. Resistance becomes a resistance to the periphery. Surprisingly the site at which this resistance is best engaged turns out to be the Nation State, and the analogue sovereign.

Digital Colonialism

In 1996 Kroker warned of the consequences of the colonial process transformed on the screen:

Virtual colonialism is the endgame of postcapitalism. Just when we thought that the age of European colonialism had finally come to an end, suddenly we are copied into the second age of virtual colonisation: a reinvigorated recolonization of planetary reality that reduces human and nonhuman matter to a spreading wake of a cosmic dust trail in the deepest space of the blazing comet of virtual capitalism.⁴⁶

The Invisible Empire has no borders that need a military presence to protect, or unruly colonies that require an exercise of violence to keep in place. Rather, the colonisation in which the Invisible Empire engages is economic and social and the borders are determined by the literacy, the wetware and the context in which those individuals exist, the cultware, that separates the digital citizen from the digital underclass and it is these that determine an individual's position at either the core or periphery of empire. When probing the nature of digital sovereignty, the expected

⁴⁶ A. Kroker, 'Virtual Capitalism', in S. Aronowitz, B. Martinsons & M. Menser (eds), *Techno Science and Cyber Culture*. New York: Routledge, 1996.

process of the core being refreshed from the periphery, Gandhi's minority driven reform,⁴⁷ was missing. While the discourse of digital sovereignty, and the ensuing power structures are constantly in a state of flux, they do not interface with the periphery as part of this discourse, the periphery is not on screen. However within the broader understanding of the Invisible Empire, this expected core and periphery exchange does occur, it is within this framework of the interface through access of the digital and analogue environments, that the core and periphery of the Internet can be found.

The Invisible Empire and digitisation transforms analogue relations. As Edward Said questioned:

What will happen to [the theory or idea] when, in different circumstances and for new reasons it is used again and, in more different circumstances, again?⁴⁸

The colonial experience is differently experienced in each manifestation. Each place colonised has its own history and identity that influences the process, as does each separate act of colonial domination. This is also true of digital colonisation, where the fragmentation of core and periphery that occurs as part of the off screen postcolonial structures are even more pronounced, and will manifest differently in each incarnation.

The Invisible Empire, shadowing its analogue predecessors, uses the products and ideas of the periphery to refresh the core. This can be tracked in the arrival of new structures and ideas within the core. The early innovators conceptualised the Internet as a place of social capital, and a civil society without the need for the threat of

⁴⁷ L. Gandhi, *Postcolonial Theory: A Critical Introduction*. Edinburgh: Edinburgh University Press, 1998.

⁴⁸ E. Said, *The Word the Text and the Critic*. Cambridge: Harvard University Press, 1983.

violence inherent in the sovereign to be maintained. As individuals and organisations started to make money, or more accurately generate private, rather than social capital on the Internet, one of the early and most influential concepts to migrate to the core of Invisible Empire was capitalism. At this point, it was in fact the Invisible Empire itself that was colonised by the capitalist system. This was an important change to the environment. Capitalism required the ability of the sovereign to determine, and enforce through the threat of violence, laws that act to underpin the civil society that it requires in order to operate effectively, and this was not present in this new environment. This inherent problem with capitalism on, in and through the Internet can be seen in the attempts of rival digital sovereigns to influence the discourse of digital sovereignty to support their particular understanding of how capitalism manifests in this environment, whether it be the production and protection of digital content, or the services provided to distribute others' digital content (the two paradigms most often in conflict). This inherent flaw then leads to the fractured nature of sovereignty in the Invisible Empire and the fluid and changing nature of the discourse of digital sovereignty and citizenship.

The Invisible Empire still exists in the 'off screen' world. It lays down an added layer of exclusion and disadvantage as well as privilege and advantage on that which is already present off screen. While wetware, and cultware may create conditions of exclusion from the Invisible Empire, the off screen provision of telecommunications service, hardware and software, absent in many places, accentuate these differences. In this case, places on the periphery of the off screen world are doubly disadvantaged. In much of Africa, there is a dearth of telecommunications access. This acts to heighten the disadvantage that comes from a widespread lack of literacy

to make use of bandwidth and ‘physical’ access to the Invisible Empire even if it was present.

The core of Invisible Empire refreshes itself from the periphery. It absorbs new functions and skills from outside the Internet. This is how the capitalism got in to the core in the first place. When looking for this phenomenon as part of the analysis of digital sovereignty, it was not present, this is due to the focus of that analysis being contained on screen, within the digital environment. The periphery does not manifest until this environment interfaces with the off screen world. Thus what we would expect to find occurring in the analysis of sovereignty occurs instead only at the level of empire. This is due to the construction of the digital self and the digital underclass. Once on screen an individual moves towards the digital core, the relative core-periphery positioning of that individual is determined primarily through their literacy or wetware, and the context in which they find themselves, the prevailing level of cultware. It is only at this point of on screen activity that digital sovereignty is negotiated. The periphery exists off screen, and so it is only at this interface that this interaction between the core and periphery can occur.

In the digitised environment of the Internet, the digital underclass cannot be seen or encountered by the digital citizen, and there is nothing to mark difference between those at the core and those at the periphery. Space and markings of class are removed from the relationship, causing these two notions of class and colonisation to conflate, and leaving the relationship between the empowered, and the disempowered one enacted through both economics, and exclusion. Social and spatial markers still exist, but within the dominant and disempowered populations of the Invisible Empire,

rather than between them. The absence of the traditional markers of exploitation through distance and social relations makes any kind of resistance against this order highly problematic. How can the colonised learn and reinterpret the language of the coloniser in such an environment?

The Invisible Empire is ruled by the discursive structure of digital sovereignty. As a discursive structure, it does not have desires or active motivation. There is causality, but there is no intent. Thus while the Invisible Empire might be exploiting those at the periphery to the advantage of those at the core, this is a function of the way that those two spaces are structured and interact, rather than the function of an active decision by the Digital Crown that such exploitation should occur. This is not to say that such exploitation might not be the deliberate strategy of one or more digital sovereigns, but rather that the discourse of digital sovereignty will reflect a position negotiated by rival sovereigns and digital citizens at any given point in time, it is an amalgam of competing discourses and interpretations, and as such acts with no predetermined causality. This makes the Invisible Empire significantly different from what has gone before, where there has been a premeditated decision by the sovereign power at the core to enhance wealth through the exploitation of the colonised. While individual digital sovereigns attempt to exercise their influence over the discourse of digital sovereignty, this is focused at the off screen environment, whereas this structural inequality is a function of the interface of the Invisible Empire between on and off screen, the digital and the analogue. This is not an argument for technological determinism, rather looking at the role for ‘human’ agents, and where this manifests.



Figure 91
Advertising Poster from the Empire Marketing Board, January 1927

Class has many definitions. It invokes an interaction between groups in society based on social and economic relations. The core-periphery relationship between colonised and coloniser is a relationship involving economics and space, or distance from the core, and cultural construction. In the words of Homi Bhabha:

Subjects are always disproportionately placed in opposition or domination through the symbolic decentring of multiple power-relations that play the role of support as well as target or adversary.⁴⁹

It may be postulated that digital colonisation would merely represent an extension of the pre-existing neo-imperial condition, as Edward Said quoted Anthony Smith in *Culture and Imperialism*:

The threat to independence in the late 20th century from the new electronics, could be greater than was colonialism itself. We are beginning to learn that decolonisation was not the termination of imperial relationships but merely the extending of a geopolitical web, which has been spinning since the

⁴⁹ H. Bhabha, 'The Other Question: Difference, Discrimination and the Discourse of Colonialism', in R. Fergusson, M. Gever, Trinh Minh-ha & C. West (eds), *Out There: Marginalisation and Contemporary Cultures*. New York: MIT Press, 1990.

Renaissance. The new media have the power to penetrate more deeply into a 'receiving' culture than any previous manifestation of western technology. The result could be immense havoc, an intensification of the social contradictions within developing societies today.⁵⁰

Digital colonisation differs from its off screen manifestation in three distinct areas. The first two areas relating to the identity and construction of both, the Empire and the self, are consistent with Smith's position. The increased abstraction of both core and periphery can be seen as a continuation of the trend starting with the formal garrisoning of Roman troops to control a colonised region, through to the far more subtle, and thus harder to resist neo-imperialism of the globalisation of capital associated with the American Empire. The Internet potentially provides for the greater penetration predicted by Smith and the potential for inequitable distributions of access to the technology can and will increase social contradictions within society. However it is the inequitable distribution of access that sets digital colonisation apart from its analogue counterpart. This third area concerns the nature of access to the Internet, the individual alone at the screen. The gates of Invisible Empire do not provide any common ground for colonised and coloniser. This creates a break from what has gone before as the colonisers and the subaltern no longer share a space in which a discourse between the two can occur, and creates a very different environment for the colonial discourse to inhabit.

The construction of the Invisible Empire and discourse of control of citizenship and sovereignty in the digitised environment create a decentralised seat of power. There are many separate participants taking part in the discourse, both exerting and interpreting sovereignty and the role of the good digital citizen. The crown has been

⁵⁰ A. Smith, *The Geopolitics of Information: How Western Culture Dominates the World*. New York: Oxford University Press, 1980, p 176, as cited in E. Said, *Culture and Imperialism*. London: Chatto & Windus 1993, p. 353.

moved from the head of the Emperor in the centre of a geographically continuous ancient empire, through the hands of the King or Queen projecting their power to colonies located over seas and beyond the horizons of those they colonise to the more fragmented scalp of the global capitalist system. In each case, the relation of the sovereign to physical space, or land occupied, has been becoming more distant and less corporeal. Within the Invisible Empire the connection to physical space is abandoned entirely, occurring only at the interface with the off screen elements of the empire in which the digital self's physical body resides. The identity of the sovereign becomes further fragmented and disjointed, as it is interpreted and reinterpreted at each instance of access.

The individual is similarly fragmented, the digital self consists of many separate digital identities and exists as a coherent whole only for the individual each identity represents, and even within this understanding there will be areas of identity that are only distantly accessible by the individuals that they represent, or in the case of identity theft are only a simulacrum or false representations of an individual. The digital citizen cannot be seen in their entirety by the sovereign, just as the sovereign as an entity is splintered and hard to define. The relationship between the sovereign and the ruled is thus highly complicated and subject to change as multiple, fragmented identities and relationships are constantly negotiated.

While the imperial rulers at the core of the Invisible Empire and the identity of self at the periphery are fragmented and mobile, the point of access provides a solid barrier to those without the literacy and cultware to activate access. This sets the impact of digital colonisation aside from what has gone before. Those without access have no

direct experience of the Internet, it is invisible to them. Conversely those same excluded individuals have no digital identity to project, to manifest on screen. They are invisible in that environment. This makes resistance even more problematic for the disadvantaged. As Verbal Kint in *The Usual Suspects* paraphrased C.S. Lewis, 'The greatest trick the Devil ever pulled was convincing the world he didn't exist'.⁵¹ In this context, the invisible reach of the Invisible Empire into and between the population of an individual Nation State makes consciousness of the process, and thus resistance, all the harder to generate, and the ability of the Nation State to react to the process similarly problematic.

So how does this Invisible Empire, and the resulting process of colonisation manifest in the off screen world? Where would one search for the digital proletariat? If the core and periphery are not marked by space, then how do they interface with the existing core-periphery structures off screen, in an environment where status is determined by literacy rather than space? The world's largest online bookstore serves as a strong example of these on screen digital core-periphery relationships as they manifest at the off screen core, in the United States.

⁵¹ *The Usual Suspects*. Written by Christopher McQuarrie, Directed by Bryan Singer, Gramercy Pictures, 1995.

Image Removed

Figure 92
Digital Photomontage by Gregory Heisler for *Time Magazine*, 27th December 1999

Amazon.com is one of the most famous brands of all Internet based companies. It began selling to the public in 1995 and listed as a public company in 1997.⁵² The company's CEO and founder Jeff Bezos, was one of the celebrities of the dot com stock market boom of the late 1990s and *Time Magazine's* person of the year in 1999. Naomi Klein notes of Amazon.com:

It is online that the purest brands are being built: liberated from the real world burdens of stores and product manufacturing these brands are free to soar, less the disseminators of goods and services than as collective hallucinations.⁵³

The company's head office is located in Seattle, and is a place clearly at the core of the Invisible Empire. The staff that would be expected to be found there are highly literate and well paid, and while there is less wealth present than before the collapse of the 'dot com bubble' in stock investment, this is still where the 'wealth' of the enterprise resides in terms of both the physical housing of the companies computers, Web pages, and data bases, and also in terms of the understanding and development of the business model, and crucially the brand.

⁵² R. Spector, *Amazon.com: Get Big Fast*. USA: Harper Collins, 2000.

⁵³ N. Klein, *No Logo*. Great Britain: Flamingo, 2000, p. 24.

Image Removed

Figure 93
Photograph by David Burnett, *Time Magazine*, 27th December 1999

Amazon also runs a series of large warehouses where inventory is stored and shipped to its customers. These spaces exist closer to the periphery, as *Time Magazine* noted in 1999 ‘It’s the blue collar work of the Internet. Neon hair, body piercing and non-Caucasian skin tones are generously represented.’⁵⁴ It is here that the labour is done to physically drive the organisation and add value to the enterprise ‘housed’ at the head office.

54 J. Zeff, ‘From Your Mouse to Your House’, *Time Magazine* 27th December 1999.

Image Removed

Figure 94

Photograph by David Burnett, *Time Magazine*, 27th December 1999

Just as the labourers picking tea in Ceylon (the Amazon warehouse staff are also known as pickers) added value to the London based East India Company the labour



Figure 95

Advertising Poster from the Empire Marketing Board, April 1927

of these groups on the digital periphery is exploited by those at the core. While they are in separate places, they could all be located in the same building. Core-periphery exploitation is no longer activated through picking tea, rubber or bananas. It is now off screen labour in the service industries that is exploited in a new form of clean capitalism, where those in the core cannot even perceive those who are exploited to produce the fruits of the digital economy. Within the Amazon supply chain, this continuity can be manifested in the UPS driver who delivers the goods from the warehouse to the customer, as once again the use and value adding of off screen peripheral labour serves the creation of wealth at the core.

While Amazon is an example of how the Invisible Empire allows for core and periphery to inhabit the same off screen space, separated by the literacy of those involved, this is only one example and does not necessarily show the full impact of the Invisible Empire on economic relations in the off screen environment. The older templates of empire still exist off screen and have not been superseded by the Invisible Empire, rather their focus is on an older mode of citizenship that now coexists with that of the digital citizen. The core-periphery relationships established by the Invisible Empire, rather than existing in isolation to the off screen world, instead lay down their own layer of advantage and disadvantage, of core and periphery, over the existing off screen world. The online economic activity driven by Massively Multi-Player Online Role-Playing Games (MMORPGs) provides a fascinating example of how this digital/virtual capitalism occurs.

MMORPGs and the Virtual Sweatshops of the Invisible Empire

Civilisation is, in its earliest phases, played. It does not come from play like a babe detaching itself from the womb: it arises in and as play and never leaves it
–Johan Huizinga⁵⁵

In the late 1980s, multi user dungeons such as LambdaMOO were text-based environments. These computer mediated online spaces drew considerable academic interest.⁵⁶ The more recent online interactive games are considerably more complex thanks to advances in computing power and bandwidth. Encompassing larger and more detailed worlds, they also enclose a much larger population of players. The first game in the new category of Massively Multi-Player Online Role-Playing Games (MMORPG) was *Ultima Online* <http://www.uo.com/>, which went online in September 1997. While tracing their origins to the more humble MOO these are very different environments. There are currently more than 350 different game worlds. *EverQuest* <http://EverQuest.station.sony.com/> is the industry leader in America, and operated by Sony Online. It has approximately 430,000 players,⁵⁷ of which more than 118 000 have been simultaneously online at peak periods.⁵⁸

⁵⁵ J. Huizinga, *Homo Ludens: A study of the Play Elements in Culture*. London: Routledge and Kegan Paul Ltd, 1949.

⁵⁶ J. Dibbell, *My Tiny Life: Crime and Passion in a Virtual World*. New York: Henry Holt, 1998.

L. Kendall, 'MUDder? I Hardly Know Er! Adventures of a Feminist MUDder'. In L. Cherney and E. R Weise (eds), *wired_women: Gender and New Realities in Cyberspace*. Seattle: Seal Press, 1996.

E. Reid, 'Communication and Community on Internet Relay Chat: Constructing Communities'. In P. Ludlow (ed), *High Noon on the Electronic Frontier*, Cambridge MA: MIT Press, 1996.

S. Turkle, *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster, 1996.

C. Kolo & T. Baur, 'Living a Virtual Life: Social Dynamics of Online Gaming', *Games Studies*. November 2004, volume 4, issue 1.

⁵⁷ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*. January 2003.

<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁵⁸ M. Jakobsson. & T. L. Taylor, 'The Sopranos Meets EverQuest: Social Networking in Massively Multiplayer Online Games', *Ezine*. August 2003, volume 17, issue 18.

http://www.fineartforum.org/Backissues/Vol_17/faf_v17_n08/reviews/jakobsson.htm [accessed 7.11.2004].

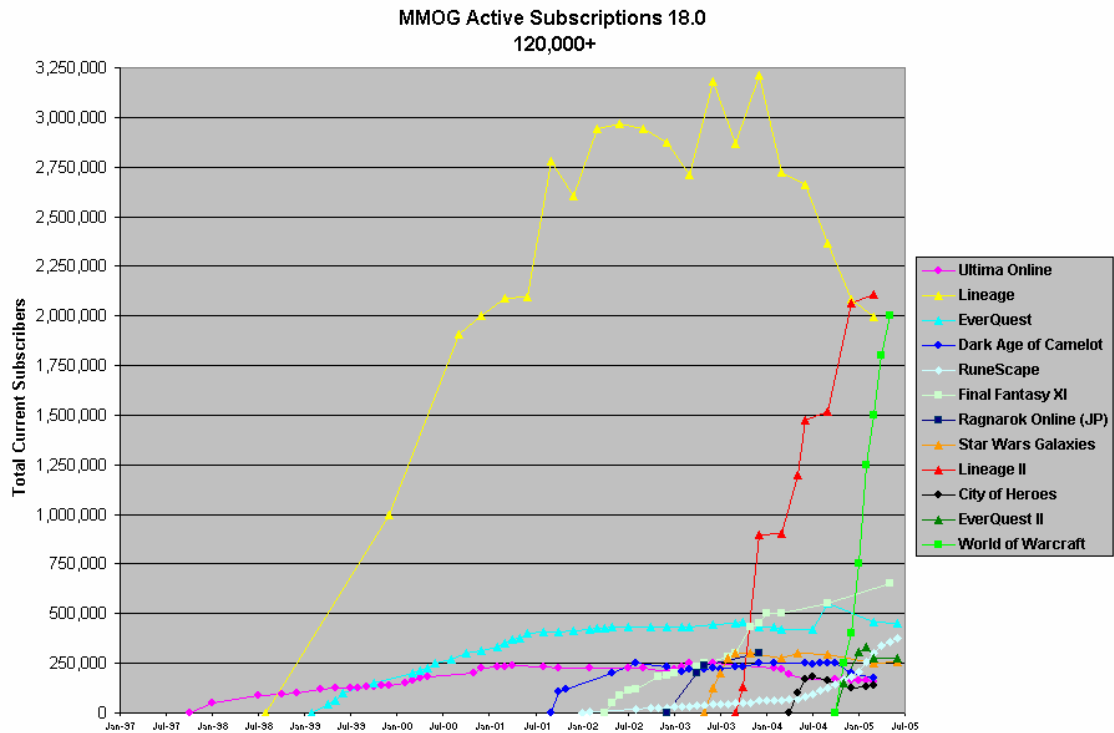


Figure 96
MMORPG Subscriptions, July 2005
<http://www.mmogchart.com/>
 [accessed 21.6.2005]

The largest game by population, *Lineage* <http://www.lineage2.com/>, is operated from South Korea and has been reported as having a population of more than four million player accounts⁵⁹ of which more than one hundred and fifty thousand may be active online at any one time.⁶⁰

⁵⁹ A. Krotoksi, 'Real Profits from play money', *The Guardian*. 15th April 2004.
<http://www.guardian.co.uk/online/story/0,3605,1191678,00.html> [accessed 27.4.2004].

⁶⁰ J. C. Herz, 'The Bandwidth Capital of the World', *Wired Magazine*. August 2002.
<http://www.wired.com/wired/archive/10.08/korea.html> [accessed 30.10.2004].



Figure 97

Lineage II

<http://www.l2treasures.com/>

[accessed 28.4.2004]

Each of these games renders a distinct virtual world with different themes, activities and objectives for players. Normally players will pay to initially purchase the games software, and then a monthly access fee. Within the game world players are projected as their avatars, digital representations of the characters they play, which are able to gain virtual skills, equipment, and wealth. This type of environment is significantly different from other spaces in the broader Invisible Empire. Each world is limited; it has a scarcity of resources, and abilities. A player's avatar, and the virtual goods they might come to make or own, share a constancy of production that mirrors off screen goods, as opposed to other 'normal' digital artefacts on the Internet that can be easily copied and distributed at minimal cost. While it might be possible to make a digital copy of a character's magic armour and sword, it would not be possible to do so in the context of the game where the item's value is activated, without going through a similar process of production, whether it be fighting a virtual dragon, or time spent behind the bellows in the virtual smithy. Throughout history, the view of the best possible world has been one of abundance

and ease, yet conversely it is the constraints and limitations of the MMORPG worlds that provide the challenge and appeal to players, as Edward Castronova, Economics Professor at California State University notes ‘people seem to prefer a world of constraints to a world without them’,⁶¹ Juul also noted in relation to these limitations that rules ‘offer affordance as well as limitations’⁶² as quite simple rules can create a variety of potentially complex outcomes’.⁶³

Image Removed

Figure 98

Invuln Plate Mail \$49 EBay resale price, photo by Ken Brown
http://www.wired.com/wired/archive/11.01/gaming.html?pg=2&topic=&topic_set=
[accessed 28.4.2004]

61 E. Castronova, ‘Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier’, *CESifo Working Paper* No. 618. December 2001.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294828 [accessed 27.7.2004].

62 J. Juul, *Half Real: Video Games Between Real Rules and Fictional Worlds*. Doctoral Dissertation: IT University of Copenhagen. Defended November 12th 2003. http://www.jesperjuul.net/text/half-real_abstract.html [accessed 7.11.2004].

63 J. Juul, ‘The Open and closed: Games of Emergence Games of Progression’ in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

The Game of Chess, with its relatively simple rules, yet extremely complex play is a good illustration of this principle.

This leads to a situation in some games where simple commodities, that might otherwise have little value to players, take on a much higher economic value, as time and effort must both be spent to produce them. Similarly, characters or avatars that develop virtual skills and abilities over time become more valuable than those that have only just been created. It takes time and effort to ‘grow’ them. This involves not just an expenditure of off screen capital to pay for game subscriptions and Internet access, but also an investment of the player’s time and effectively their labour within these virtual worlds.

Image Removed

Figure 99

Bundle of Hay \$16 EBay resale price, photo by Ken Brown

http://www.wired.com/wired/archive/11.01/gaming.html?pg=2&topic=&topic_set=

[accessed 28.4.2004]

As well as goods and avatars that require skill and dedication to build, the MMORPG worlds also contain commodities that hold value not by their production costs but rather their scarcity. There are some virtual items of which there are a limited number, either through the game’s design, or their production having been discontinued, or in the case of movable error messages in *Ultima Online* (a highly valuable ‘rare’ in the game) through programming errors. The most common manifestation of this type of resource across the various MMORPG universes is virtual land. *Ultima Online* produced by Electronic Arts had a land crisis as its virtual world of Britannia became fully occupied, and prices for virtual land began to

spiral. In response, the game's developers added a new continent to the world. While these electronic fantasy worlds have some similarities to the off screen economy, actions like this electronic version of continental discovery show that the analogy is far from perfect, although the parallel with analogue European colonial expansion is compelling. The resultant land rush as this new continent was opened to sale meant that at one virtual location there were thirteen players' avatars, each player trying to buy the land by continuously clicking their mouses on the spot while they waited for the 'option to purchase' in the game to be turned on. In the end only one player got to build their tower when the option was activated.⁶⁴ In this case it was time, effort, enterprise and luck that resulted in this virtual wealth. Players generate not just their individual character's skills and possessions but also generate culture and community within the game. Taylor notes that this collective construction of the game environment is often overlooked.⁶⁵ Humphrey divides the MMORPG production in the virtual environment into 'tangible' and 'intangible' virtual assets.⁶⁶ Tangible assets are those that can be attributed a value in relation to an individual, virtual gold coins, a magic sword, their skill as a blacksmith etc. Intangible assets on the other hand are those that are created by the communities and social environment that the game activates. Humphrey notes that these assets are created through both the paid labour of the game's developers, and the unpaid labour of the players as both combine to create the unique text of the particular game. Tangible assets can potentially be transferred from one player to another, whereas

⁶⁴ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*, January 2003.

<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁶⁵ T. L. Taylor, "'Whose Game Is This Anyway?': Negotiating Corporate Ownership in a Virtual World", in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

⁶⁶ S. Humphreys, "'You just got better at alterations [135]'" The shifting relations of players and developers in multi user online games', *Conference Paper: Internet Research 4.0*. Toronto, 2003. <http://www.aoir.org/members/papers42/Sal%20Humphreys%20AoIRS%202003.htm> [accessed 6.11.2004].

intangible assets are the product of the community and the game represent a kind of virtual public good.

These games are nominally designed to be ‘stand alone’ environments. As such, they have an internal consistency that rewards time and effort on the part of the players. Their borders at first seeming closed, rather are quite porous. These games they exist within space created through the Internet, access to which is a prerequisite to play the games in the first place. The borders of these stand alone environments expand outside the direct control of the games developers as players interact with each other through different applications online. A proportion of the ‘intangible wealth’ created by both the collective group of players and the game developers is manifested in this environment through discussion fora and game-related Web sites. Given this it is of little surprise to see activities in these out of games spaces having repercussions within the ‘closed’ space of the game.

In October 2000 a long time player of *EverQuest* had the account for his character ‘Mystere’ suddenly terminated while he was playing. After some investigation, the player found that this action had been taken due to the potentially offensive nature of some ‘fan fiction’, a story he had written about the background to his character, that he had posted on the *Elf Lore* and *EQ Vault* online message boards.⁶⁷ While neither of these sites is affiliated with Sony Online, the company had received complaints about the graphic nature of the story and acted, it said, in order to protect the image

⁶⁷ S. Brudage, ‘EverQuest Strips the Dark from “Dark Elf”’, *Games.Com*. October, 2000. http://www.gamegirladvance.com/mmog/archives/2002/10/21/stripping_the_dark_from_dark_elf_in_eq.html [accessed 8.11.2004].

of the game.⁶⁸ In 2003 Peter Ludlow's Sims Online Character 'Urizenus' was a celebrity eviction from that game. He published his own web site the *Alphaville Herald* named after the main city in that game. His offence was to expose some of the seedier sides to the game including virtual conmen and virtual prostitution, and the fact that both were, according to the *Herald*, being carried out by underage players off screen. Electronic Arts stated in a letter explaining their actions 'we feel it is necessary for the good of the game and its community'.⁶⁹

While both these reactions by the games owners can be understood in terms of their concerns about the off screen image of the respective games, the reaction of the players, and the effect on their on screen image, illustrates the role of the players in creating value through the generation of intangible capital. Players in *EverQuest* reacted to the eviction of Mystere by closing their own accounts, shutting down their fan sites on the Internet, and writing fan fiction of a more graphic nature than Mystere and then demanding that they too be banned from the game.⁷⁰ Sony online responded by the CEO of the game, John Smedley, writing a letter officially apologising to the players, and personally calling Mystere's player to invite him back into the game (he declined). Without the community created by the players, and the revenues from their subscriptions the game's resources have no value.

⁶⁸ T. L. Taylor, "Whose Game Is This Anyway?: Negotiating Corporate Ownership in a Virtual World", in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

⁶⁹ F. Manjoo, 'Raking Muck in "The Sims Online"', *Salon.Com*. 12th December 2003. http://www.salon.com/tech/feature/2003/12/12/sims_online_newspaper/index_np.html [accessed 16.12.2004].

⁷⁰ S. Brudage, 'EverQuest Strips the Dark from "Dark Elf"', *Games.Com*. October, 2000. http://www.gamegirladvance.com/mmog/archives/2002/10/21/stripping_the_dark_from_dark_elf_in_eq.html [accessed 8.11.2004].

The 'tangible' wealth generated by creating goods and developing character abilities, and stored in real estate also manifests outside the closed games environments as it comes to represent off screen value, rather than just being redeemable within the MMORPG worlds for virtual currency. Edward Castronova:

The minute you hardwire constraints into a virtual world, an economy emerges, One-trillionth of a second later, that economy starts interacting with ours.⁷¹

Using the exchangeable value for virtual goods as determined by EBay sales, Castronova estimated the GNP of Norrath – *EverQuest's* virtual world – to be \$US135 million, which were it an analogue Nation State would place it as the world's 77th richest economy,⁷² roughly equivalent in terms of GNP per capita with Russia.⁷³

Players are able to buy and sell goods, character abilities, and real estate through the Internet, as well as through trading in the virtual game.

⁷¹ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*. January 2003.

<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁷² A. Krotoksi, 'Real Profits from play money', *The Guardian*. 15th April 2004.

<http://www.guardian.co.uk/online/story/0,3605,1191678,00.html> [accessed 27.4.2004].

⁷³ E. Castronova, 'Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier', *CESifo Working Paper* No. 618. December 2001.

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294828 [accessed 27.7.2004].

Image Removed

Figure 100

Castle: \$2,053 EBay resale price, photo by Ken Brown

http://www.wired.com/wired/archive/11.01/gaming.html?pg=1&topic=&topic_set=

[accessed 25.4.2004]

EBay category 1654 is reserved for goods from Internet games. In 2003 more than \$US9 Million was traded through this service.⁷⁴ These sales exclude one of the largest of the virtual economies represented by *EverQuest*.

⁷⁴ M. Ward, 'Virtual Cash Goes Live', *BBC News*. 7th January 2004.
<http://news.bbc.co.uk/2/hi/technology/3368633.stm> [accessed 27.4.2004].

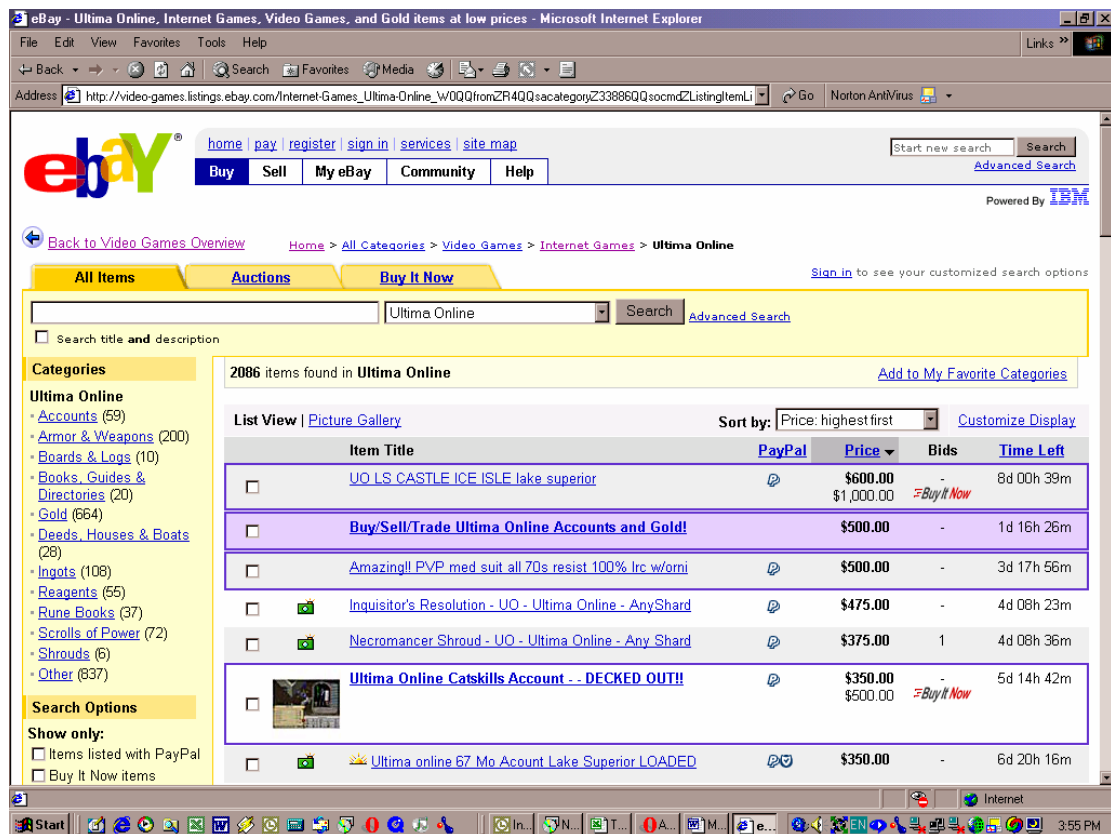


Figure 101

EBay

<http://www.ebay.com.au/>

[accessed 15.1.2005]

This value of tangible virtual wealth is based on the intangible value created by the players and the developers of the various games. As Raphael Koster stated

For every person you see selling an [Ultima Online] account on EBay... there are a bunch of people bidding, too. And they are bidding on intangibles. They are offering up their hard-won real money in exchange for invisible bits and bytes because they see the intangibles of UO as being something worth having. A tower for a sense of pride... I find it odd that people think this cheapens the whole thing. I think it validates it.⁷⁵

Without the combination of the intangible value from the players of Ultima Online, and the product produced by Electronic Arts that makes game an enjoyable experience the account would have no value. It is only able to realise its off screen

⁷⁵ R. Farmer, 'KidTrade: A Design for an Ebay-resistant Virtual Economy', *Habitat Chronicles*. October, 2004. <http://www.fudco.com/habitat/archives/000023.html> [accessed 8.11.2004].

value in its on screen context. Without the intangible value created by both the players and owners of a MMORPG the tangible wealth has no foundation.

As Koster recognises, within the game environment, players are divided in their attitude to this cross border trade. This debate can be distilled into one of time against money. Players who have spent time in the various games generating virtual wealth resent others who are able to effectively buy their way into a powerful position in the game with their off screen and out of game wealth.

Gender vs. Predominant occupation	Non - employed, non-student	Student	Home maker	Administrator / Owner of large business	Administrator / Owner of small business	Professional	Technician / Semiprofessional
% of Males	2.6	42.5	0.2	11.1	0.4	3.2	14.6
% of Females	0	19.1	4.3	12.8	2.1	4.3	10.6

Gender vs. Predominant occupation	Office worker / White collar	Tradesperson / Blue collar	Un -skilled worker	Sales / Service	Farmer / Fisher	Arts	Other
% of Males	6.3	2.8	0.8	3.6	0.2	2.8	8.7
% of Females	17	0.0	2.1	10.6	0	0	17

Figure 102
Breakdown of MMORPG Players by Profession and Gender
<http://www2.sfu.ca/media-lab/onlinegaming/report.htm>
 [accessed 6.11.2004]

The argument follows that this disparity allows inequalities in the off screen world to permeate the game world, and works against the leveling effect of each new player entering in the game with the same basic avatar. The counter to this argument is that this situation unfairly advantages those players who have time to spend in the game at the expense of those who have less capacity to play, but often higher disposable

income. Vendors of virtual goods refer to this as a need for 'power leveling'. Interestingly both arguments are premised in the desire for all players in the game environment to be equal. While there is a degree of hostility to 'power leveling' or EBaying as the practice is known, there is much less player disquiet about the practice of 'Twinking' where a new player is 'gifted' equipment and other resources from an existing character,⁷⁶ perhaps due to the transaction occurring entirely within the borders of the game.

Different games have different attitudes towards extragame trading. Some such as Linden Lab's *Second Life* <http://secondlife.com/> encourage the growth of the game beyond its virtual borders, and are happy with free trade across their virtual territory.

Philip Rosedal, CEO of Linden Lab:

It's great. It's hyper-liquid. When you reduce trade borders you get faster development.⁷⁷

Others however are more protectionist and actively work to block this type of trade. *EverQuest* attempts to keep the game behind closed borders. The Sony end user license agreement (EULA), that the players must agree to at the start of each online session states '...You may not buy, sell or auction (or host or facilitate the ability to allow others to buy, sell or auction) any Game characters, items, coin or copyrighted material.'⁷⁸ Sony Online has an agreement with EBay since April 2000 that none of

76 M. Jakobsson & T. L. Taylor, 'The Sopranos Meets EverQuest: Social Networking in Massively Multiplayer Online Games', *Ezine*. August 2003, volume 17, issue 18. http://www.fineartforum.org/Backissues/Vol_17/faf_v17_n08/reviews/jakobsson.html [accessed 8.11.2004].

77 D. Terdiman, 'Virtual Cash Breeds Real Greed', *Wired Magazine*. 23rd January 2003. <http://www.wired.com/news/games/0,2101,61999,00.html> [accessed 2.6.2004].

78 R. Farmer, 'KidTrade: A Design for an Ebay-resistant Virtual Economy', *Habitat Chronicles*. October, 2004. <http://www.fudco.com/habitat/archives/000023.html> [accessed 7.11.2004]. http://eqlive.station.sony.com/support/customer_service/cs_EULA.jsp [accessed 8.11.2004].

the games virtual goods will be sold through category 1654 (or anywhere else on the auction site)⁷⁹. Chris Kramer, Sony Online Director of Public Relations:

The official line is that the selling of characters, items or equipment in *EverQuest* goes against our end user agreement. It's currently not something the company supports and causes us more customer service and game-balancing problems than probably anything else that happens within the game.⁸⁰

For the owners of the games, the time it takes each character to develop both skills and equipment is central to their economic model that requires each player to have to invest time to develop their character, and thus provide revenue from subscriptions. However as Taylor notes, the fact that games, particularly *EverQuest*, provide mechanisms for trading and sales of items within their 'closed' worlds both facilitates the 'cross border' trading and makes the magnitude of the offence ambiguous.⁸¹

In 2002, *Dark Age of Camelot* <http://www.darkageofcamelot.com/> owned by Mythic Entertainment, closed the accounts of Black Snow Interactive for selling large numbers of high level or powerful avatars in their game world and were subsequently taken to court for unfair business practices in a case that remains unresolved. The same Black Snow Interactive was itself unsuccessfully sued by Anarchy Online <http://www.anarchy-online.com/> for 'grinding' too many accounts.⁸² Grinding is the industry phrase for taking basic entry level avatars and playing them

⁷⁹ T. L. Taylor, "Whose Game Is This Anyway?: Negotiating Corporate Ownership in a Virtual World", in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

⁸⁰ D. Terdiman, 'When Play Money Becomes Real', *Wired Magazine*. 7th April 2004. <http://www.wired.com/news/games/0,2101,62929,00.html> [accessed 28.4.2004].

⁸¹ T. L. Taylor, 'Whose Game Is This Anyway?: Negotiating Corporate Ownership in a Virtual World', in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

⁸² A. Krotoksi 'Real Profits from play money', *The Guardian*. 15th April 2004. <http://www.guardian.co.uk/online/story/0,3605,1191678,00.html> [accessed 27.4.2004].

until they become more powerful, and then selling them to new players. This process engages an economic constancy of production. Each unit produced requires just as much time and resources as the unit before, and the unit after. Many of the other tangible goods in the game share a similar production pattern, the same amount of virtual and off screen resources needed to make each virtual product. When this process is conducted in an organised way it generates a fordist mode of production in an otherwise post-fordist casual economy. Similarly for those involved, it crosses the line between these environments marking spaces where the players are engaged in recreational activity, to one where they are involved in virtual labour. As Caillois postulated ‘it may be of interest to ask what becomes of games when the sharp line dividing their ideal rules from the diffuse and insidious laws of daily life is blurred’.⁸³

The role of the multiple actors, both players and developers, involved in the creation of the ‘text’ of each of these games has generated considerable debate about the private ownership of this type of virtual public space. Taylor notes that this is due to the evolution from the essentially public ‘not for profit’ spaces of the text based MUDs and MOOs to the commercialised industry of MMORPGs.⁸⁴ A number of writers have noted there may be a need for new understanding of intellectual property and copyright to be developed for these environments.⁸⁵ Although as

⁸³ R. Caillois, *Man Play and Games*. United States of America: Thames and Hudson, 1962, p. 43.

⁸⁴ T. L. Taylor, ‘The Social Design of Virtual Worlds: Constructing the User and Community Through Code’, in M. Consalvo, N. Baym, J. Hunsinger, K. Jensen, J. Logie, M. Murero, and L. Shade, (eds), *Internet Research Annual, Volume 1: Selected Papers from the Association of Internet Researchers Conferences 2000-2002*. New York: Peter Lang, 2004.

⁸⁵ S. Brudage, ‘EverQuest Strips the Dark from “Dark Elf”’, *Games.Com*. October, 2000. http://www.gamegirladvance.com/mmog/archives/2002/10/21/stripping_the_dark_from_dark_elf_in_eq.html [accessed 8.11.2004].

E. Castronova, ‘On Virtual Economies’, *Games Studies*. December 2003, volume 3, issue 2. <http://www.gamestudies.org/0302/castronova/> [accessed 7.11.2004].

Castrova⁸⁶ notes the extensive use of EULAs in this industry heavily favours the owners and developers of the games at this time. These can however also be seen as a kind of explicit social contract that each players agrees to before entering the world.

There is much debate over who owns the fruits of virtual labour in these virtual worlds. Are the players able to do as they wish with the product of their labour, including exporting it to the off screen world, or is this virtual produce still subject to the copyright of the games owners, and still their (virtual) possession? Are the goods owned by the company that produces the game, the virtual owners of the means of production, or the players that cause the production within the game, the virtual workers, who thus should own the produce of their virtual labour? Within this context, the debates about how the game is 'played' take on a classic Marxist positioning. As Lee Cadwell, Director of Sales at Black Snow Interactive, stated:

What it comes down to is, does a MMORPG player have rights to his time, or does Mythic own that player's time?⁸⁷

The monetary importance of this question is evident by the fact that the trade in virtual goods generate more than US\$300 million each year, which is more than

R. Farmer, 'KidTrade: A Design for an EBay-resistant Virtual Economy', *Habitat Chronicles*. October 2004. <http://www.fudco.com/habitat/archives/000023.html> [accessed 7.11.2004].

S. Humphreys, "'You just got better at alterations [135]" The shifting relations of players and developers in multi user online games', *Conference Paper: Internet Research 4.0*. Toronto, 2003. <http://www.aoir.org/members/papers42/Sal%20Humphreys%20AoIRS%202003.htm> [accessed 6.11.2004].

M. Jakobsson. & T. L. Taylor, 'The Sopranos Meets EverQuest: Social Networking in Massively Multiplayer Online Games', *Ezine*. August 2003, volume 17, issue 18. http://www.fineartforum.org/Backissues/Vol_17/faf_v17_n08/reviews/jakobsson.htm [accessed 7.11.2004].

T. L. Taylor, "'Whose Game Is This Anyway?': Negotiating Corporate Ownership in a Virtual World', in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

86 E. Castrova, 'On Virtual Economies', *Games Studies*. December 2003, volume 3, issue 2. <http://www.gamestudies.org/0302/castronova/> [accessed 7.11.2004].

87 M. Slagle, 'Online Games Pay Real Cash for Virtual Objects', *AP Online*. 25th March 2002. <http://www.detnews.com/2002/technology/0203/25/technology-448554.htm> [accessed 22.7.2004].

double the revenue from subscription payments made by players to the various MMORPG operators.⁸⁸ While it would seem that the law in most cases would support the ownership of copyright, and enforcement of the end user licences agreements by the developers of the games over the players, courts in China have notably come down in favour of the players ruling that it is they who own the fruits of their labour, perhaps reflecting the State's communist ideology.⁸⁹ Julian Dibbell describes the MMORPG economy:

It's a whole new species of economy – perhaps the only really new economy that, when all has boomed and crashed, the Internet has yet given rise to. And how poetic is that? For years, the world's economy has drifted further and further from the solid ground of the tangible: Industry has given way to postindustry, the selling of products has given way to the selling of brands, gold bricks in steel vaults have given way to financial derivatives half a dozen levels of abstraction removed from physical reality. This was all supposed to culminate in what's been called the virtual economy – a realm of atomless digital products traded in frictionless digital environments for paperless digital cash. And so it has. But who would have guessed that this culmination would so literally consist of the buying and selling of castles in the air?⁹⁰

The virtual borders of these games are made porous through a number of mechanisms. EBay <http://www.ebay.com/>, – the online auction site –, has provided one of the main marketplace for exchanges. This in turn is facilitated by fund transfer and trust enabling services such as PayPal <https://www.paypal.com/>. These services are further aided by the use of email, instant messaging, the World Wide Web, and the telephone service for different customers and vendors to meet in a virtual digital marketplace.

⁸⁸ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*. January 2003.
<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁸⁹ M. Russell, 'New Industry: Scavengers collect virtual booty in online games and sell it for real cash', *Newsweek International*. 11th October 2004.
<http://msnbc.msn.com/id/6161530/site/newsweek> [accessed 8.11.2004].

⁹⁰ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*. January 2003.
<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

While some trading both within and outside of the various MMORPG environments is done between individuals, there is also a role in this market for traders or merchants to buy and sell goods and act to facilitate transactions between buyers and sellers. The tower from *Ultima Online*'s Britannia was sold along with the rest of the user's account for US\$500 after the player was unable to find work off screen and needed to realise some of the value of their on screen assets. The tower and land, along with belongings and characters, was put up for auction on EBay, but before the auction took place, the player was contacted by a MMORPG trader, Bob Kiblinger, who broke up the various virtual assets for sale on his web site <http://www.l2treasures.com/>.⁹¹ While these traders were originally individuals, or small teams, there has been an increasing move within the industry towards larger organisations. One of the first of these was the Black Snow Interactive (BSI). This was one of the first major players in the virtual goods industry, and provoked the first set of litigation in this area, both initiated by BSI against Mythic Entertainment, and also directed towards the company from Anarchy Online. However by June 2002, the company and its directors had disappeared, without paying their legal bills (amongst many of the company's other suppliers), and the case against Mythic was dropped.⁹²

Internet Gaming Entertainment (IGE) <http://www.ige.com>, founded in 2001, has become the largest player in the tertiary virtual goods industry. With its corporate headquarters in the United States at New York and Miami Beach, it has an office in Hong Kong and over one hundred employees, growing at approximately five new

⁹¹ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*, January 2003.

<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁹² The company's two principles may not have represented the most proprietous of business operators previously having been fined \$10,000 by the US Federal Trade Commission for auctioning non-existent computers.

staff a week, processing orders for virtual goods.⁹³ While IGE sells a wide variety of virtual goods, there are other companies that are more specialised. Gaming Open Markets (GOM) <http://www.gamingopenmarket.com/> provides a currency exchange between different MMORPG worlds, as well as the off screen US Dollar. This service renders the borders of these virtual worlds porous to each other without having to pass through the off screen world for currency exchange. The company tracks the values of different virtual currencies, which fluctuate according to their supply and demand.⁹⁴



Figure 103
Gaming Open Markets
<http://www.gamingopenmarket.com/market.php?symbol=SLL>
[accessed 21.6.2005]

⁹³ D. Terdiman, 'When Play Money Becomes Real', *Wired Magazine*. 7th April 2004.
<http://www.wired.com/news/games/0,2101,62929,00.html> [accessed 28.4.2004].

⁹⁴ MMORPG worlds are notorious for periods of hyperinflation when software bugs are discovered that allow for unchecked production of virtual currency.

This company's operations illustrate the complexity of trading across the many borders between virtual worlds. To bank money with GOM, a player first goes to their Web site and opens an account. They can then book a deposit, when an avatar of one of the company's agents will arrange a time, and virtual location to meet and transfer the currency. The agent is an avatar of a real person rather than a computer simulation or bot, as GOM does not have access to the computers running the various games in which they operate. The player is told via email of the secret password that the agent will use, so that they know that they are a legitimate employee of Gaming Open Markets and that they are not giving their currency deposit to a fraud. The player then replies with their own secret password to verify their identity to the agent. This currency, once banked, can then be traded through the company's Web site. If the player wishes to buy virtual currency for off screen cash, then they make a deposit to GOM using PayPal. For GOM, the danger is that the company running the MMORPG in question will become displeased with their operation, and locate and delete one of the avatars that hold their virtual cash reserves. However while the company running each game does, as illustrated above, have this sovereignty over life and death of the avatars within its various worlds, they are not omnipresent. Detecting the actual agent could prove problematic. This difficulty is accentuated by the ability of GOM to have multiple agents that join and leave the game and transfer assets between each other.

This type of virtual meeting is a standard part of doing business across the borders of MMORPG worlds. When the tower and land in Britannia was on sold by L2treasures its new owner was delivered the keys by an avatar named Blossom. This turned out

to not even be Bob Kiblinger, but his cousin Eugene, who he pays US\$10 an hour to make his various deliveries and pickups in the virtual world.⁹⁵ Blossom/Eugene fulfils the role of customer service in this industry. While requiring a certain level of literacy in the operation, employing agents such as this allows for the more efficient use of those with the stronger literacy required to value, purchase and sell virtual goods, who then can concentrate on this revenue generation.

Image Removed

Figure 104

Lore Brand Comics

<http://www.lorebrandcomics.com/currencyexchange.html>

[accessed 12.11.2004]

There is more to this virtual digital economy than this surface view of the MMORPG environment provides. Ken Selden the Chief Economist at Internet Gaming Entertainment:

There's a relationship between real-life economics and a virtual economy. I happen to believe that these virtual economies are very real, serious economies.⁹⁶

⁹⁵ J. Dibbell, 'The Unreal Estate Boom', *Wired Magazine*. January 2003.
<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

⁹⁶ D. Terdiman, 'When Play Money Becomes Real', *Wired Magazine*. 7th April 2004.
<http://www.wired.com/news/games/0,2101,62929,00.html> [accessed 28.4.2004].

The Invisible Empire lays down an added layer of disadvantage on that already present off screen. The MMORPG environment becomes a surprisingly good illustration of this. The constancy of production of goods in the virtual games makes them more analogous to off screen goods than other digitised goods and services that can be easily copied and transported. It is of little surprise then to find that the production of these goods comes to mirror patterns found in the off screen environment. The production of goods that require relatively complex skills remains at the core, and to this end the companies trading in virtual goods will purchase rare and expensive virtual items from active players based in the various games. Production that requires relatively unskilled labour can be conducted more efficiently through the exploitation of cheap labour in the periphery.

Black Snow Interactive were the first company to act on this understanding that a form of production that requires time, unskilled labour, and is able to be located anywhere with access to the Internet, would be most efficiently done where hourly wages were low, and then this produce could be sold where money was relatively abundant.⁹⁷ While the company was claiming in its lawsuit against Mythic Entertainment that it was defending the interests of players in *The Dark Age of Camelot*,⁹⁸ it had in fact, rather than merely acting as a trader, also set up its own production facility in Tijuana Mexico. BSI had a production facility with a T1 high bandwidth Internet connection, eight computers, and was running three shifts to keep the operation going 24 hours seven days a week using relatively cheap unskilled Mexican labour to grind characters in the game for resale to American players. This

⁹⁷ Or at least were the first company to have been exposed in the process of engaging in this process.

⁹⁸ Of whom there are approximately 250,000.

was in the words of Julian Dibbell the world's first virtual sweatshop,⁹⁹ where the Invisible Empire and the American Empire interfaced. In the case of the division of labour at Amazon.com the digital core and periphery inhabited the same space in the off screen world. In the MMORPG world with its constancy of virtual production the on screen and off screen periphery and core conflate.

While Black Snow Interactive ceased operation, IGE seem to be following a similar business model. The company needs to send its avatars into a game where it is trading, and travel within the virtual world. This 'travel' however can be based anywhere. The company has therefore located their distribution operation in Hong Kong, which runs 24/7. The company describes their suppliers as a group of more than 100 hard-core players who sell the company their excess currency, weapons and other goods.¹⁰⁰ However many of these 'hard core players' are subcontractors operating in mainland China running operations similar to that at Tijuana, although this time on a much more expansive scale.¹⁰¹ Large 'farms' largely based in China, but operating wherever wages are low, house large numbers of computers running 'bots' programs that run the various money making activities in each game and overseen by low wage virtual farmers. These workers in China earn around 56 cents an hour.¹⁰² In this context China's laws on the ownership of virtual labour in

99 J. Dibbell, 'Serfing The Web: Black Snow Interactive and the World's First Virtual Sweat Shop', *Wired Magazine*. January 2003. <http://www.juliandibbell.com/texts/blacksnow.html> [accessed 22.7.2004].

100 D. Terdiman, 'When Play Money Becomes Real', *Wired Magazine*. 7th April 2004. <http://www.wired.com/news/games/0,2101,62929,00.html> [accessed 28.4.2004].

101 J. Dibbell, *Play Money, Meet Big Money*. 18th November 2003. http://www.juliandibbell.com/playmoney/2003_11_01_playmoney_archive.html [accessed 28.4.2004] J. Lee, 'Wage Slaves', *Computer Gaming World*. 5th July 2005. <http://www.lup.com/do/feature?cId=3141815> [accessed 7.5.2005].

102 J. Lee, 'Wage Slaves', *Computer Gaming World*. 5th July 2005. <http://www.lup.com/do/feature?cId=3141815> [accessed 7.5.2005].

MMORPGs, rather than protecting a virtual proletariat, may instead be a facilitator for off screen exploitation.



Figure 105
Virtual Sweatshops in Fujian province, China
<http://www.lup.com/do/feature?cId=3141815>
[accessed 6.7.2005]

Thus IGE's operations in relation to the MMORPG economies stretch from the very core of the Invisible Empire to its periphery. At the core, the various games companies and suppliers of virtual goods fight for control of the discourse of digital sovereignty that will support their understanding of how the capitalist system should operate. In this struggle it is of little surprise to see a division of Sony, a member of the Recording Industry Association of America and Motion Picture Association of America central in the fight for ownership and enforcement of game owners copyright.¹⁰³ The company takes the *EverQuest* slogan 'You're in Our World Now' quite literally.¹⁰⁴ While Sony Online was able to shut down EBay trades in *EverQuest* virtual goods, this may have helped spawn organisations like IGE which will have far greater influence, both on the game and in their ability to influence the discourse, than a few individual traders might have. Also close to the core of

103 Not to mention one of the companies funding the Music Industry Piracy Investigation (MIPI) within Australia.

104 T. L. Taylor, "'Whose Game Is This Anyway?: Negotiating Corporate Ownership in a Virtual World', in F. Mäyrä (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

Invisible Empire are those smaller traders such as L2treasures who are able to exploit their high level of literacy in this area of the digital environment to make a profit. Further from the core, but still a long way from the edges of periphery, are those employed at the intermediate levels of this trade, at the digital semi-periphery. These include the IGE employees in the Hong Kong office engaged in processing customer's orders and the delivery avatar for L2treasures. Both examples of those employed in virtual customer service. This digital core and periphery is then laid out on top of existing off screen economic relations. Cheap labour in Mainland China is exploited and serviced by companies based in Hong Kong. This labour is then in turn exploited as its production is used to service those in the core of the Empire in the United States.

The players in the game debate whether it is they – the workers – who own the fruit of their labour and thus can take the rewards for this labour outside the game, or bring their external resources into the game, or if it is the companies running the games, the – owners of the means of production – who own what is produced in those games and academics grapple with the question of governance of privately owned public space. While at the periphery, both digital and off screen, and beyond their ability to engage from the digital core, there is exploitation of labour in the grinding of the virtual goods at the centre of these debates. Just as the mills of Manchester used to drive the production of cotton in the colonies of the British Empire, so to the virtual sweatshops at the periphery of the Invisible Empire are driven by production at the core.



Figure 106

Spinning the Web: the global cotton industry
<http://www.spinningtheweb.org.uk/industry/trade.php>
 [accessed 10.11.2004]

In this case, the intangible capital created by both players and game designers in the production of the complex texts of MMORPGs at the core provides the foundation for the value of the tangible assets cheaply mass-produced at the periphery. MMORPGs do not require a high level of literacy to play. This makes them perfect vehicles for the extraction of value by unskilled, low paid workers who inhabit both the off screen, and digital periphery. As with other areas of the digital periphery, these workers cannot be seen, and indeed are not spoken of, in the debates at the digital core. Richard Florida's distribution of the 'creative class'¹⁰⁵ in this context is reinterpreted and reinforced by the Invisible Empire.

105 R. Florida, *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life*. Australia: Pluto Press, 2002.
 R. Florida, *The Flight of the Creative Class: The New Global Competition for Talent*. New York: Harper Collins, 2005.

Within the Invisible Empire there is no King. There are the trappings of empire without the benefits, no protection, and no new social technological structures for those at the periphery. The Invisible Empire has no military. It defends and invades no real space, however the off screen core and on screen periphery can exist within the same geographic area as represented through the differing levels of literacy and context manifest in separate individuals. The fact that a person can be disconnected and separate from the Empire illustrates that the Invisible Empire and the digital citizenship it activates is very different to any that have gone before, all of which required troops on the ground (or the threat of the same) to maintain the empire, whether it be a spatial or 'Nation State' based empire, such as the British Empire, or a more ambiguous economic empire, such as the United States. The Invisible Empire is a new type of manifestation, and it has very different interactions with the world to that which have gone before. The Digital Raj is not the same creature as those that ruled India for Britain. In the Invisible Empire the digital periphery cannot be directly experienced. While, through redundancies in the packet switching emails may go missing, in Africa – they never arrive.

When dealing within the realm of Invisible Empire both within the core and on the digital periphery, the markers of gender, class, race, and distance are invisible. It is the interface of access, where the periphery intersects with the core that these markers once again manifest and become apparent. Access is the point of transition from periphery to core and it is within the Nation State, the analogue sovereign, that this point of transition occurs. It is the place in which access is negotiated. For Homi

Bhabha, it is the third space where the in between translation takes place.¹⁰⁶ The core-periphery as negotiated through access is a fluctuating and highly unstable relationship, and moves as both digital sovereignty and access are negotiated. As a result of this movement, it is very difficult to map. It is due to this highly disjointed nature of digital sovereignty at this point, that the Nation State is the only available structure capable of taking the role of negotiating that point of access, and having the opportunity of enabling the best position for its citizens. The next chapter then explores the construction of resistance to empire and colonial domination, and the central role played by the Nation State in this construction.

106 H. K. Bhabha, *The Location of Culture*. London & New York: Routledge, 1994.

Chapter 7

Resistance and the Nation State



Figure 107

Resistance

<http://www.raisethefist.com/>

[accessed 17.5.2005]

And did those feet in ancient time
Walk upon England's mountains green?
And was the holy Lamb of God
On England's pleasant pastures seen?

And did the Countenance Divine
Shine forth upon our clouded hills?
And was Jerusalem builded here
Among these dark Satanic Mills?

Bring me my Bow of burning gold:
Bring me my Arrows of desire:
Bring me my Spear! O clouds unfold!
Bring me my Chariot of fire.

I will not cease from Mental Fight,
Nor shall my Sword sleep in my hand
Till we have built Jerusalem
In England's green and pleasant land.

JERUSALEM From *Milton*, a poem in two Books (1804-1808)
by William Blake.

Introduction

This chapter probes resistance to the Invisible Empire, stressing the role of the Nation State in configuring a place where that resistance can be activated. Starting with a brief critical history of the colonial process, the analysis moves from Spain's conquest of the new world through to the proliferation of the academic field of Postcolonial Studies in 1978 with the publication of *Orientalism* by Edward Said. This thesis explicitly draws together Postcolonial Studies and Internet Studies, both of which draw on a common intellectual heritage from the post structuralist movement in France and the intellectual influences tied to the Algerian War of Independence.

Acknowledging this framework and intellectual ancestry, my chapter explores the interaction between the analogue Nation State and the digital Invisible Empire, exploring the function of the Nation State as a site of resistance to colonial oppression and then how this is transformed in the digital environment. This analysis then is exemplified, specifically investigating the island nation of Tuvalu, and its interface with the Invisible Empire. From this relatively successful story of resistance the analysis then turns to South Africa.com and NewZealand.com, and the two countries concerned unsuccessful struggle against the exploitation of what they perceived as the digitised natural resources.

These arguments are significant in the context of the argument presented in this thesis. This chapter introduces the Nation State, as a traditional site of resistance to imperial control, and how that structure can potentially maintain that position in

relation to the Invisible Empire. This resistance is activated differently from earlier modes and methods. This background is necessary to instigate strategies for intervening in the power relations configured within and by the Invisible Empire, and providing voice for the Subaltern.

The Colonial Critic



Figure 108

Bishop Bartolome Las Casas

http://oregonstate.edu/instruct/phl302/philosophers/las_casas.html

[accessed 14.1.2005]

Bishop Bartolome Las Casas was the first Catholic priest ordained in the new world. He is credited with being the first prominent intellectual to articulate an objection to the colonial process. His 1542 book, *A Short Account of the Destruction of the Indies* questioned the legal and moral standing of the Spanish occupation of Americas. He was famous for humanitarian critique of Spanish colonialism, particularly with its

blessing from Pope Paul III and the Spanish King Charles I to bring Christianity to non-believers. In the time of the conquistadors, there was little ambiguity in the moral character of colonisation.



Figure 109

Adam Smith

http://en.wikipedia.org/wiki/Adam_Smith

[accessed 29.3.2005]

Another strong although secular critic of the process of colonisation was Adam Smith. In *An Inquiry into the Nature and Causes of the Wealth of Nations*, first published in 1776, Smith outlines his objections to the impact of the monopoly of trade that existed between the colonies at the periphery and the colonising European country. In his case, he spoke primarily of England and North America.

We must carefully distinguish between the effects of the colony trade and those of the monopoly of that trade. The former are always and necessarily beneficial; the latter always and necessarily hurtful.¹

¹ A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edited by Edwin Cannan London: Methuen and Co., Ltd., 1904. Fifth edition, p. 133.
<http://www.econlib.org/library/Smith/smWN.html> [accessed 17.3.2005].

Smith's objections were of a purely economic persuasion in contrast to Las Casa's moral objections to the practice. Smith does indicate that he does not specifically object to colonial expansion, and critiques only its distorting effect on the market.

But the former are so beneficial that the colony trade, though subject to a monopoly, and notwithstanding the hurtful effects of that monopoly, is still upon the whole beneficial, and greatly beneficial; though a good deal less so than it otherwise would be.²

The more recent phenomenon of neocolonialism is often seen as both a product of, and partner in, the expansion of global capitalism. While the process of colonialism and neocolonialism is understood through the gauze of economic exploitation, one of the most prominent early advocates of the capitalist market objected to the process precisely on economic grounds.

Karl Marx writing in the century following Smith, and highly critical of the capitalist economic system, wrote:

The profound hypocrisy and inherent barbarism of bourgeois civilisation lies unveiled before our eyes, turning from its home, where it assumes respectable forms, to the colonies where it goes naked.³

While Marx affirmed the rise of all the workers of the world against capitalist oppression, he did not offer any specific strategy for resistance to colonial exploitation. Rather he viewed it as a logical extension of the expansion, in contrast to Smith or, as Young described it, 'Both a cause and effect of the development of capitalism'.⁴ Marx not unlike Smith does not specifically object to the colonial process itself, seeing it as necessary for the socialist revolution. Marx and Engels

² A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edited by Edwin Cannan London: Methuen and Co., Ltd., 1904. Fifth edition, p. 133.
<http://www.econlib.org/library/Smith/smWN.html> [accessed 17.3.2005].

³ K. Marx, *Surveys from Exile: Political Writings*. Vol. 2, Translated by B. Fowkes & P. Jackson, Harmondsworth: Penguin, 1973. as cited in R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001.

⁴ R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001, p. 108.

developed the proposal that the Nation State, and nationalism could act as an institution and ideology of resistance to global capitalism, their focus in particular being Ireland.⁵ Marxist theory advocated critiquing and changing the existing social and economic structure in order to alter the social circumstance the disadvantaged find themselves in. While in this case Marx was advocating a global socialist revolution to overthrow the global capitalist system and empower the working class, the impact of his writings and theories has greatly influenced the subsequent writers with a focus critical of the colonial and postcolonial condition.

Postcolonial theory critiques the structure and processes of colonisation, imperialism, neo-colonialism, neo-imperialism and the postcolonial. The field of study traces its immediate origins back to the work of Edward Said, and more directly to his book *Orientalism* first published in 1978.⁶ Said's work developed the idea that colonialism was a discourse of domination, as well as a form of military domination.⁷ Said, writing in relation to the representation of Arab cultures, critiqued the construction of the Orient as 'the other' to the normalised west. This biased construction then acted to influence not only the study of the orient but also to provide the foundations for European imperialism in the region. Said argued that

This is the culmination of Orientalism as a dogma that not only degrades its subject matter but also blinds its practitioners.⁸

While not denying that differences existed, Said argued for a more critical evaluation of those differences, and a more detailed study rather than a generalised

⁵ K. Marx & F. Engels, *Ireland and the Irish Question: A Collection of Writings*. New York: International Publishers, 1972.

Marx & Engels On Ireland. Transcribed by E. O'Callaghan & A. Blunden <http://www.marxists.org/archive/marx/works/subject/ireland/> [accessed 4.7.2005].

⁶ E. Said, *Orientalism*. London: Routledge & Kegan Paul Ltd, 1978.

⁷ R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001 p. 383.

⁸ E. Said, *Orientalism*. London: Routledge & Kegan Paul Ltd, 1978.

understanding of what constituted the orient. He also, significantly, called on the Oriental to be given their own voice, rather than to be described from a distance by scholars in the west.



Figure 110

Edward Said

<http://www.sussex.ac.uk/%20conferences/said2004/>

[accessed 6.4.2005]

While Said's work is generally agreed to be an origin and foundation of Postcolonial Studies,⁹ the academic field can trace its intellectual history to the structuralist

⁹ The influence of Said's work can be seen in a range of scholarship in the last two decades. B. Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism, Revised Edition*. London & New York: Verso, 1991.
J. Crampton, *The Political Mapping of Cyberspace*. Edinburgh: Edinburgh University Press, 2003, p. 73.
S. Gikandi, *Maps of Englishness: Writing Identity in the Culture of Colonialism*. New York: Columbia University Press, 1996.
M. Hardt & A. Negri, *Empire*. London: Harvard University Press, 2000.
N. Larson, 'Imperialism, Colonialism, Postcolonialism', *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
A. Quayson, 'Postcolonialism and Postmodernism', *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
G. C. Spivak, *Outside in the Teaching Machine*. London: Routledge, 1993.
N. Thomas, *Colonialism's Culture: Anthropology Travel and Government*. Princeton, New Jersey: Princeton University Press, 1994.
Y.C Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001.

movement often associated with the Prague school of linguistics in the 1930s and more directly to the post structuralist movement that followed. Post structuralism had much of its academic drive from continental Western Europe, and France in particular. The Paris student riots and general strike of May 1968 drew much of their inspiration for social change from this movement.



Figure 111
Protesters in Paris during the May 1968 general strike
<http://www.mai68.net/>
 [accessed 7.4.2005]

Emerging from post structuralism was a number of broad disciplines with overlapping and mobile borders. Specifically of interest here are the development of Cultural Studies as an academic area of enquiry in England in the works of academics such as Stuart Hall, Raymond Williams, and E.P. Thompson. Much of the emerging field of Internet Studies can trace its origin through this lineage. Postcolonial writing, emanating largely from the United States, although often by academics who originate in other more peripheral regions of the world, also can be seen as emerging from the broader post structuralist movement, as can the Indian based writings of the Subaltern Studies Group.¹⁰ This thesis is an attempt to bring

¹⁰ P. Chatterjee (ed), *Texts of Power: Emerging Disciplines in Colonial Bengal*. Minneapolis: University of Minneapolis Press, 1995.

P. Chatterjee & G. Pandey (eds), *Subaltern Studies: Writings on South Asian History and Society*. London: Oxford University Press, 1993.

D. Chakrabarty, 'A Small History of Subaltern Studies', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.

postcolonial theories into dialogue with a Cultural Studies inflected understanding of Internet Studies.

Following from the early criticisms of the colonial process from Las Casa, Smith, and Marx, theorists of colonisation emerged in the poststructuralist writing in France, and specifically linked to the French occupation of Algeria. The movement is also closely associated with the events of May 1968, however as Young notes:

If 'so called poststructuralism' is the product of a single historical moment, then that moment is probably not May 1968 but rather the Algerian War of Independence – no doubt itself both a symptom and a product. In this respect it is significant that Sartre, Althusser, Derrida, and Lyotard, among others, were all either born in Algeria or personally involved in the events of that war¹¹

Paul Virilio was also conscripted into the French army for this conflict, and Franz Fanon, an author frequently mobilised in Postcolonial Studies writing, was also involved with the Algerian conflict. He was the head of the psychiatry department of a hospital in Algeria when the war erupted. Michel Foucault also spent significant time in another French colony in Tunisia. The writings of these poststructural theorists have impacted greatly on later writers of postcolonial theory. Interestingly much of the language of colonial domination in English comes from French origin. The words *authority*, *obedience*, *soldier*, *garrison*, *guard*, *crown*, and *throne* all come into English from the French, arriving with the invading army and sovereignty of William the Conqueror.¹² The French language also provided English with words for mobilising resistance to colonial control, the words *justice* and *liberty* in particular.

¹¹ R. Young, *White Mythologies: Writing History and the West*. London: Routledge, 1990, p. 412.

¹² M. Bragg, *The Adventure of English: The Biography of a Language*. New York: Arcadia Publishing 2004.

While the development of poststructuralist writing was implicated by many theorists in French colonialism, it was the former colonies of the British Empire and then the United States that produced many of the most influential writers in postcolonial theory. Edward Said was born in Jerusalem while it was under British mandate, raised in Egypt, and studied and worked at universities in the United States. Homi K. Bhabha was born in India, studied in India and Britain, and then moved to the United States. Gayatri Chakravorty Spivak similarly was born in India where she completed her undergraduate studies before also moving to the United States. It is difficult to 'locate' such mobile theorists in relation to the core and periphery. Postcolonial theory illustrates the ambiguity of a person's identity and spatial location demonstrated by where many of its prominent theorists were born, where they teach and write, and whom they teach and what they research. The French poststructuralists wrote in Paris and other continental universities at the core.¹³ Perhaps capturing a shift in the centre of power in the world since that time, Postcolonial theorists are now more likely to be based in the United States.¹⁴

This mobility is not restricted to cultural theorists. *The Sydney Morning Herald* produced a list of the fifty most influential Australians in early 2005.¹⁵ Of these only seventeen, less than forty percent, lived in Australia, with twelve living in Sydney

13 Foucault was based at the College de France, having previously taught in Uppsala in Sweden and the University of Paris,

Sartre spent most of his life in France,

Althusser was born in Algeria but as an academic was based in Paris,

Derrida taught in France, and then later (perhaps as a sign of things to come) in the United States,

Lyotard also taught predominantly in France.

Fanon was born in the French colony of Martinique but studied in France after World War Two before moving back to the French colonies.

14 Homi K Bhabha works from Harvard University, Gayatri Chakravorty Spivak is based at Columbia University, as was Edward Said until his death in 2003. Dipesh Chakrabarty is based at the University of Chicago.

15 D. Dale, 'Advanced Australians', *The Sydney Morning Herald*. 22nd January 2005. <http://www.smh.com.au/articles/2005/01/21/1106110923362.html> [accessed 24.1.2005].

(probably as a result of its world city status, but also perhaps reflecting the publication's own bias). There were fifteen based in the United States with five each in New York and Los Angeles, and a further ten in the United Kingdom with eight in London. More of the fifty most influential Australian lived in the three centres of empire – London, New York and Los Angeles – than live in Australia. Location, and identity, while becoming more fluid over time, is still influenced by the geography of periphery and core relationships. National identity it seems moves with an individual when they leave a nation's geographic space. Conversely individuals are still drawn to the physical location of the core.

Postcolonial theory seeks to critically examine the condition of the colonised and the formerly colonised, the ongoing relationships between the coloniser and the colonised and the mechanisms through which both control is maintained, and resistance to that control is potentially activated. In this context the end of the formal control of many former colonial possessions following the Second World War, while significant, did not signal the end of colonial relations and imperial oppression at both the periphery and core respectively. As Tara Brabazon cautions:

Postcolonialism is an inadequate, and at times, a dangerous term. It does suggest that colonial relationships and institutions have been replaced – that colonialism is over.¹⁶

The complex social and economic consequences of former colonial relationships now stretch from the peripheral former colonies through to the households of metropolis Los Angeles, from child labour manufacturing soccer balls in India to imported domestic help in the United States. Within these relationships, the place of the underclass, those without a place to speak of their experience and a

16 T. Brabazon, *Tracking the Jack: A Retracing of the Antipodes*. Sydney: UNSW Press, 2000, p. 47.

consciousness of their position, can trace a lineage of study and advocacy back through Marx and his study of the conditions of the working class, through the Bishop Las Casas and his concern for the treatment of the local colonised people in South America. Contemporary Postcolonial Studies similarly place a particular emphasis on the conditions of the underclass, those rendered as subaltern.

The Nation State and Colonial Resistance

Following the foundation of the Nation State at the Peace of Westphalia, this construction was 'exported' to the rest of the world through European colonial expansion. In this context it became, rather than a political mechanism to prevent religious war, instead a construct of colonial domination. The Nation State as a structure, having been determined as static and unchanging at the peace of Westphalia, once applied to the periphery became transient and fluid. The borders at the periphery were reshaped by the ebb and tide of different actors at the core. Colonial maps were redrawn after wars between European empires, and the absent sovereign was replaced as structures of domination remained in place. The aftermath of the fall of the Ottoman Empire and the Austro-Hungarian Empire, and the transformation to colonial ownership following the Spanish-American war were all being potent examples of the seemingly transient nature of the Nation State at the periphery, despite its inception as an unchanging territory.

The core is reinterpreted at the periphery. The Nation State, while installed as a vehicle for the administration of domination from the core, was also subject to reinterpretation at the periphery and became a vehicle for resistance to that domination. Control of the land was vital to the analogue colonisation project. Regaining control

of the land and its resources were a central element of the struggle for liberation from colonial control. Edward Said argued that,

One of the first tasks of the culture of resistance was to reclaim, rename and reinhabit the land.¹⁷

The people of India were able to use the formation of the Nation State as a vehicle for crossing through ethnic and religious lines that might otherwise divide them. While the European empires rapidly retreated following the Second World War, the Nation States they had put in place remained, both as a residue of their presence as a potentially enabling formation to resistance to those empires influence. All empires leave a residue of prior manifestations. The Nation State as a site of resistance can be similarly activated against the colonial influence of the Invisible Empire.

The Nation State and the Invisible Empire

At first glance, it would seem that the sovereign Nation State is best served by keeping its citizens firmly at the periphery of the Invisible Empire and enmeshed in the Westphalian mode of citizenship that is specifically bound to this institution. Access is the point at which the Nation State's control and exclusive sovereignty over the citizen can be maintained, without them 'escaping' the grasp of the Nation State through their projected digital identity. Blocking access allows for both colonisation and disempowerment to continue. While in some cases this does occur (there is not a great deal of Internet access encouraged in North Korea) this analysis disregards the role of the Nation State as the traditional site of resistance to colonisation, or more accurately, it misunderstands how resistance to the Invisible Empire is realised. Traditional national resistance to empire involves the restoration

¹⁷ E. Said, *Culture and Imperialism*. London: Chatto & Windus 1993, p. 273.

of history of the colonised, integration and community building and liberation to form a nation. It also involves resistance to the military presence of the empire.¹⁸

In the digitised environment, this resistance is differently executed and applied. Digitisation is colonisation by other means, particularly for those who, on the periphery, have no access themselves. A person's image can be digitised through a mobile phone camera, and then displayed on web sites without the knowledge of the person of whom the image has been taken. Without access to the Internet they will have no way of becoming aware. There are no obvious markings of geography, race or gender between those at the core, and those at the periphery. On screen, the periphery is invisible and unrepresented. Off screen the core is invisible and inaccessible. When opposing the Invisible Empire, traditional national resistance is turned on its head, rather than expelling the core. It is a process of joining the core, or perhaps, expelling the periphery.

It is hard to formulate resistance when the core and periphery exist side by side, invisibly within the population of the Nation State. It is the disempowered within the Nation State that most often find themselves at the periphery. The Internet moves through many national borders, however the users, while exercising their projected digital selves, and engaging with the digital environment as digital citizens, at the same time inhabit their various analogue sovereign territories, and engage with their separate national governments off screen. Those national governments still exercise their sovereignty off screen. While other transnational organisations may play some role in attempting to resist or mitigate the effects of digital colonisation, it is the

¹⁸ E. Said., *Culture and Imperialism*. London: Chatto & Windus 1993.

Nation State with sovereignty and responsibility for citizens that is positioned to be the primary site of resistance.

There are myriad processes through which the Nation State resists the Invisible Empire, both through enabling individual citizens, and more broadly as a nation. Many of these echo traditional resistance to colonisation, but adapted to the new digital environment, and the unique nature of resistance in this area. Traditional resistance to the process of colonisation involved the restoration of history, and integration and community building to form an independent nation. Within the digital context, this type of resistance is illustrated by individual Nation States enacting policies to promote and project their unique culture and language into the digital environment. Prominent examples of this can be seen in France and Canada which both share a concern for the French language. Particularly in Canada, cultural difference from the United States plays an important role in the shaping of the nation's identity. As Douglas Rushkoff notes:

By getting online each culture spreads its own iconography back to the rest of the world.¹⁹

While the Invisible Empire does stretch across the jurisdictions of multiple Nations States, this does not mean that those thus colonised are without a negotiating position in regard to their own domain within the Internet. For any nation to unilaterally enact laws or regulation in relation to the Internet would result in a conflict of sovereignty whenever the Internet interfaced with other sovereign territory. However each nation has its own domain name suffix to designate its virtual 'space' on the Internet. While many nations choose to regulate only to the point of how domain names within this

19 D. Rushkoff, 'Americaphobia and the Engineered Fear of Progress', paper presented at the *Conference on the Internet and Society*, Harvard University 28-31 May 1996. <http://www.aec.at/meme/symp/panel/msg00091.html> [accessed 9.4.2004].

suffix are distributed, if at all, other nations have taken a more proactive, creative, and innovative position.

Tuvalu

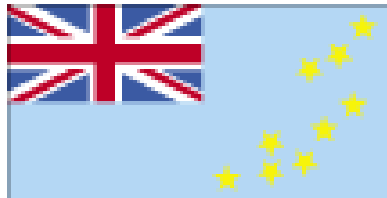


Figure 112

Flag of Tuvalu

<http://www.cia.gov/cia/publications/factbook/flags/tv-flag.html>

[accessed 15.4.2004]

In 1978 the former British Colony of Tuvalu was granted independence. Tuvalu means eight standing together, a reference to the eight traditionally inhabited atolls of the group of nine that make up the nation. It is a small (26 sq km) nation, where the highest point rises to only five meters above sea level. It is the world's fourth smallest nation by landmass, and one of the most isolated. Tuvalu has a limited telephone network in the capital. There are 871 telephone lines listed in the current telephone directory.²⁰ Contact with the outer islands is through radiophone. There is only one Internet Service Provider. The single radio station broadcasts on the AM band for approximately forty hours a week.

The Tuvalu economy consists primarily of subsistence fishing and farming. The American Central Intelligence Agency lists the islands as having no arable land, and no naturally occurring fresh drinking water. The average income per capita is around

²⁰ *Tuvalu Telephone Directory*. <http://www.tuvaluislands.com/telecom/telecom-index.htm> [accessed 4.7.2005].

US\$1,100 for each of the approximately 11,305 inhabitants.²¹ Much of the government's income is derived from foreign aid, largely from Australia, New Zealand, the United Kingdom, Japan, and South Korea. This is supplemented by the sale of stamps and coins, and from money returned to the Islands by citizens working overseas, the majority of whom work in Nauru,²² although with the running down of the phosphate mining in that island many of these workers are now being repatriated. There are no known mineral deposits or other significant natural resources on Tuvalu. While there is a Tuvalu currency, the Australian Dollar is the most common legal tender in circulation. By any measure, Tuvalu is at the periphery of the world both economically and spatially.²³ The nation was formerly part of the British Empire as a colony up until the late 1970s (Queen Elizabeth II, the Queen of England, is still the head of State). The islands were also occupied by United States forces in 1942 as part of the war in the Pacific. Having arguably moved from being a part of the British Empire, and then later the American Empire, Tuvalu has proved be one of the most innovative states in the way it negotiates its relationship with the Invisible Empire.

The Tuvalu nation is one of the foremost examples of the Nation State serving as the site of resistance to digital colonisation, or more accurately being able to take advantage of the changing nature of sovereignty in an increasingly digitised and online world. While access to the Internet and telephone system in Tuvalu is severely

21 *World Fact Book 2005*. USA: Central Intelligence Agency, 2005.

<http://www.cia.gov/cia/publications/factbook/geos/tv.html> [accessed 14.4.2004].

22 Some estimates place up to 1000 individuals in this category, or nearly 10% of the population. 'A Brief History of Tuvalu'

<http://www.tuvaluislands.com/history.htm> [accessed 14.4.2004].

23 In digital discourse, Tuvalu, like much of the Pacific, is spoken about, not too.

T. Wesley-Smith, 'Net Gains? Pacific Studies in Cyberspace', *The Contemporary Pacific*. Spring 2003, volume 15, number 1.

limited, both by infrastructure and literacy with technology, this does not mean that Tuvalu is without national assets or resources in this area, and the government there has chosen to exploit them more effectively than any other. In 1999, Tuvalu signed a treaty with the United States, which exchanged access to the fisheries in the country's 200-mile exclusive economic zone for regular royalty payments. Following this trend in 2000, the government traded exclusive control of access to its Internet domain suffix of .tv to a private US based company .TV Corporation <http://www.tv/> for royalties that produced approximately five million dollars revenue each year.²⁴ The .tv corporation has since been purchased by VeriSign.²⁵ The revenue generated by the deal was twice as much as Tuvalu's previous gross domestic product.²⁶ Prior to this deal, in 1998 the country had produced a similar revenue stream by leasing access to its area code for the use of '900' number telephone services, once again based largely in the United States.

To nominate a sign is to mark it, or render it special. Those in power rarely require special status, legislative rights or lobby groups to defend and define their interests. In such an environment, women, black and gay communities are marked signs, othered by ex-nominated cultural forces. Those commonly seen as unmarked or exnominated are colonised, white-dominated citizens and nations, men and heterosexuals. Such semiotic systems also operate digitally. Within the Internet, the ubiquitous .com is unmarked. Other domain name suffixes are nominated firstly in

24 The domain name 'news.tv' is advertised on the company web site for sale for one million dollars [accessed 14.4.2004] as was the domain name business.tv. <http://www.tv/en-def-29fe86927f91/en/index.shtml>. [accessed 6.5.2004].

25 Following the colonial tradition the new owners of the domain have unilaterally reduced these royalty payments to closer to two million dollars a year as the deal see to be growing less attractive for the people of Tuvalu.

26 C. Hanley, 'Two little letters bring riches, and questions, to tiny, trusting nation', *AP Worldstream*, 4th July 2004.

terms of position and organisation such as .org, .gov or .edu and secondly by where they originate. .au indicates from Australia, .uk from the United Kingdom, and .dz from Algeria. These national suffixes not only mark the country of origin, but in doing so mark a particular address in relationship to its core-peripheral positioning within the off screen world.

Tuvalu, formally a colonised nation, has done something extraordinary. They have transformed themselves, or at least their Internet domain from a nominated, to an exnominated sign, utilizing capitalism as the method for revisioning and reclamation. Tuvalu's .tv has been transformed from the marked status of a formally colonised Nation State, via American capital, into an exnominated sign for a globalised media. Almost a boutique exnominated sign, it has moved from a minority signification to an elite signification. Tuvalu did not actually sell or cede their sovereignty to .tv, but rather leased the virtual space, not dissimilarly to a pastoral lease. They have leased governance of the domain while ultimately not their sovereignty. However as no nation yet exercises any sovereignty within their designated Internet domain this is hard to distinguish. This was a loss of governance that the country could not use. The people of Tuvalu are a long way from crossing the digital divide from periphery to core. They are not in a position to experience the assets that they have 'sold'. This example shows however that the Nation State, acting as a point of resistance to digital colonisation, can negotiate a better deal from the new Invisible Empire by understanding, and negotiating the lease of the nation's new digital sovereignty. The colonised have to understand the language of the coloniser to enable an effective resistance. This was true for traditional colonisation, but it is doubly true for colonisation from the Invisible Empire. The lease of these assets that Tuvalu's

citizens could not access can potentially provide resources that one-day might enable a level of economic development where this access will be possible. The realisation of these ‘resources of sovereignty’ is in part due to the nature of the country’s ‘sovereign territory’ on the Internet. They are unlike traditional assets of sovereignty, such as a nation’s embassy, which actually impinge on the sovereign territories of other nations. Had Tuvalu sold these assets to a hotel chain to make all that chain’s hotels outside the jurisdiction of the nation in which they reside, it no doubt would have caused some level of resistance within the international community. As no Nation States have as yet exercised their own sovereignty over their designated Internet ‘domain’, the decision of one country to grant a private company exclusive use of this area of their sovereignty has gone largely without comment.

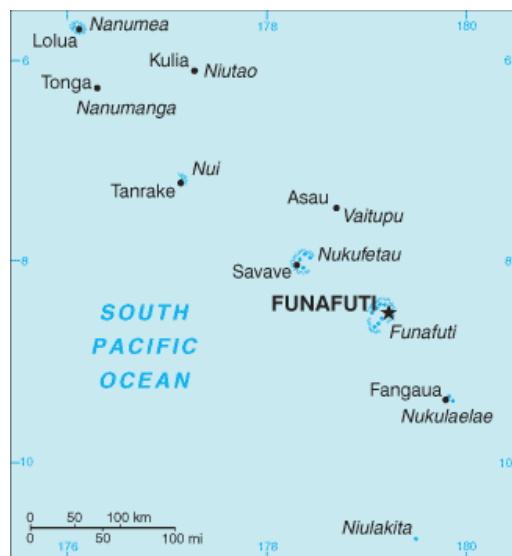


Figure 113

Map of Tuvalu

<http://www.cia.gov/cia/publications/factbook/geos/tv.html>

[accessed 15.4.2004]

Only other Nation States are in a position to respond to the hypothetical lease of Tuvalu’s embassies throughout the world, and similarly its lease of its designated domain name would face potential resistance only from this quarter. Once again, the

lack of a ruler of the Invisible Empire and lack of intent as it interfaces with the world of the analogue sovereign preclude any such reaction.

The Nation State is significant in negotiating with the interface of Invisible Empire, and acting as the agency for the activation of resistance to digital colonisation. The actions of Tuvalu in negotiating this relationship, while unique and highly successful, needs to be seen in the context of the many fronts at which the Nation State potentially engages resistance to digital colonisation. The traditional paths of resistance to colonisation are transformed by the unique requirements of the digital environment. Whereas in the traditional colonial struggle the control of the land, and the expulsion of control from the core of empire is paramount, digital colonisation requires different strategies. Rather than control of land being central this struggle is centred on access, and rather than trying to expel the centre, access is used to negotiate the colonised away from the periphery towards the digital core. Whereas Tuvalu sought to utilise its digital assets as a nation through its national domain name, other nations have sought to exert their sovereign control over what they perceived as their domain within the exnominated sign of the .com.



Figure 114
South Africa.com
<http://www.southafrica.com/>
[accessed 15.4.2004]

In 1995 a Seattle based company Virtual Countries Inc. registered the Internet domain name Southafrica.com, as it did for the domain names of thirty other countries²⁷ including Newzealand.com, Russia.com and Korea.com, the latter it later sold to the South Korean government for five million US dollars.²⁸ On the 30th of October 2000 the South African Department of Communications issued a press release stating its intention to take Virtual Countries to the World Intellectual Property Organisation (WIPO), which acts as a domain name dispute body. It was reported that Virtual Countries had asked for between five and ten million dollars to allocate the domain name to the South African Government.²⁹

²⁷ 'The Right to Southafrica.com', *Sedo.com*. 13th March 2001.

<http://www.sedo.com/links/showhtml.php3?Id=140&language=us> [accessed 19.7.2004].

²⁸ M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia Incorporating Culture and Policy*. February 2003, number 106.

²⁹ 'The Right to Southafrica.com' *Sedo.com*. 13th March.2001.

<http://www.sedo.com/links/showhtml.php3?Id=140&language=us> [accessed 19.7.2004].



Figure 115
Virtual Countries.com
<http://www.virtualcountries.com/>
[accessed 15.4.2004]

In response, Virtual Countries on the 3rd of November 2000 filed a law suit with a United States District Court in New York that asked that both the Republic of South Africa, and the South African Tourist Board be barred from taking any action to reallocate control of the domain name, and that the court recognise Virtual Countries as the legitimate owner of the domain name. South Africa successfully argued in this case that it was beyond the jurisdiction of the court to make any such judgement, due to the legal immunity the Republic of South Africa enjoyed as a sovereign nation. The exceptions to this immunity under United States law (as outlined in the *Foreign Sovereign Immunities Act* 1976) were deemed to not be applicable and the case was thrown out in a ruling on June 18th 2001.³⁰ At the time South Africa also indicated that it would not pursue the case through WIPO at that stage.³¹



Figure 116
Flag of the Republic of South Africa
<http://www.cia.gov/cia/publications/factbook/flags/sf-flag.html>
[accessed 22.4.2005]

³⁰ 'US Court Declines Jurisdiction Over SouthAfrica.com Dispute', *ICANN Watch*. 25th June 2001. <http://www.icannwatch.org/article.pl?sid=01/06/25/092829&mode=thread> [accessed 19.6.2004].

³¹ L. Harrison, 'US dotcom keeps ownership of SouthAfrica.com', *The Register*. 12th July 2001. http://www.theregister.co.uk/2001/07/12/us_dotcom_keeps_ownership/ [accessed 19.7.2004].

However South Africa then went on the lobby for greater recognition of national and place names under the ICANN dispute resolution procedures through the Second WIPO Internet Domain Name Process in 2002. Michael Froomkin, Professor of Law at the University of Miami commented on the South African submission for changes to the WIPO dispute resolution procedure:

The South African ambassador, whose nation is involved in litigation in the US over its attempt to hijack the southafrica.com domain from a non-resident company, argued passionately that country names on the Internet (by which it turned out she meant mainly .com) are the property -- yes, property, just like natural resources! -- of the nation and should not be subject to colonialist expropriation by non-resident foreigners. The argument makes almost no sense to me, since I think language is our common property, but I could not help but be struck by the passion with which it was delivered.³²

South Africa argued in its submission to the process that many companies had been able to register domain names associated with different developing nations before those nations were aware of those activities, or how they would later impact on the nation's control over what South Africa views as its national resources.³³ As Matthew Rimmer from the faculty of law at the Australian National University notes:

The Republic of South Africa read the dispute in terms of post-colonialism. The appropriation of identity, place and language remain important matters in the context of developing nations.³⁴

While for the South African Government this was seen in the context of postcolonial struggle, much of the broader domain name ownership debate is more closely linked to intellectual property laws associated with trademarks. Important transformations occur as this analogue legal foundation is digitised. Off screen it is possible for more

³² M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia, Incorporating Culture and Policy*. February 2003, number 106. p. 133.

³³ M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia, Incorporating Culture and Policy*. February 2003, number 106.

³⁴ M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms' *Media International Australia, Incorporating Culture and Policy*. February 2003, number 106, p. 133.

than one holder of a trademark to legally coexist, however once on the Internet, there can be only one unique domain name for each of these trademarks to use throughout the exnominated designation of the .com. While countries' names do not constitute a trademark South Africa argued that its national symbols, including its national domain name was protected under the *Paris Convention* of 1883,³⁵ a treaty that provides for the protection of such symbols, not as trademarks, but to prevent unauthorised exploitation of those symbols (and is also administered by the WIPO). While this argument was not without merit, the treaty, while protecting the official names of countries, does not protect their common name.

The law specifically pertaining to domain name registrations within the United States, and thus applicable to Virtual Countries through the sovereign territory it inhabits, is the *Anti Cybersquatting Consumer Protection Act* 1999.³⁶ Once again, this law was designed to support the owners of commercial trademark, rather than Nation States. As with much recent Internet regulation in the United States, this legislation supports the generation of private, as opposed to public capital.³⁷ While the government of South Africa structured the conflict through the prism of post colonialism, Virtual Countries took the position that it was a case of 'reverse hijacking', where a more powerful organisation tries to usurp control of a web address from a less powerful, but legitimate owner of that address. A process often facilitated by this type of legislation.

³⁵ *Paris Convention for the Protection of Intellectual Property*. 1883.

<http://www.wipo.int/clea/docs/en/wo/wo020en.htm> [accessed 20.7.2004].

³⁶ S.1948 Intellectual Property and Communications Omnibus Reform Act of 1999 (Introduced in the Senate), enacted as P.L. 106-113 (29th November 1999) <http://www.patents.com/acpa.htm> [accessed 21.7.2004].

³⁷ M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia Incorporating Culture and Policy*. February 2003, number 106, p. 127.

By the end of 2002, the dispute remained unresolved and at least in the medium term in Virtual Countries' favour. In October 2002 WIPO submitted to ICANN its *Report of the Second WIPO Internet Domain Name Process*.³⁸ Amongst the recommendations was the country names be afforded special protection as domain names. These recommendations were adopted at the ICANN board meeting on the 15th of July 2005.³⁹ However the protection will not be retrospective. South Africa will not be able to gain access to this domain name through this mechanism. Following the unsuccessful appeal by New Zealand to the WIPO over Virtual Countries ownership of Newzealand.com, the South African government began negotiations with Virtual Countries in May 2003.⁴⁰

Throughout this dispute, both sides sought to maximise their chance of success by choice of jurisdiction and adjudicator in the dispute. This choice reflected the ability of these rival digital sovereigns, in this case fighting over virtual property, to make the best utilisation of their differing assets and abilities. The Greg Paley, the American owner of Virtual Countries, tried to position the dispute in terms of free speech:

38 World Intellectual Property Organisation, *The Recognition of Rights and the Use of Names in the Internet Domain Name System: Report of the Second WIPO Internet Domain Name Process*, 3rd September 2001. <http://wipo2.wipo.int/process2/report/html/report.html> [accessed 29.7.2004].

39 ICANN Board Meeting, Luxembourg Approved Resolutions. <http://www.icann.org/minutes/resolutions-15jul05.htm#p2> [accessed 16.7.2005].

40 S. Whitford, 'SA Negotiates for Southafrica.com', *IT Web: The Technology News Site*. 6th May 2003. <http://www.itweb.co.za/sections/internet/2003/0305061036.asp?O=S&restriction=southafrica.com> [accessed 19.7.2004].

They want to stop free speech. They want to stop a US business from allowing people in SA to congregate on a site and discuss issues close to their hearts in a forum not controlled by them.⁴¹

This was an interesting position given that Virtual Countries is a commercial site the promote tourism, rather than a place for political discussion and debate. However by trying to draw this into the debate, Virtual Countries was hoping to receive protection under the United States constitutional guarantees for free speech. For its part, the South African Government was able to avoid the judgement of courts in the United States through its sovereign immunity from such courts, and instead tried to have the dispute resolved through WIPO where, as a Nation State, it possessed more influence.



Figure 117
New Zealand.com
<http://www.newzealand.com/>
[accessed 22.4.2005]

⁴¹ P. De Wit, 'Government wants Southafrica.com', 1st August 2001, www.itweb.co.za, as cited in M. Rimmer, 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia Incorporating Culture and Policy*. February 2003, number 106, p. 127.

In 2003, the New Zealand Government bought newzealand.com from Virtual Countries for a figure reported to be near one million New Zealand dollars.⁴² Prior to this time, the New Zealand government had an appeal to the WIPO over ownership of the domain name, which had ruled against the country to the point where Queen Elizabeth II, in her capacity as head of state for New Zealand, was found guilty of reverse domain name hijacking.

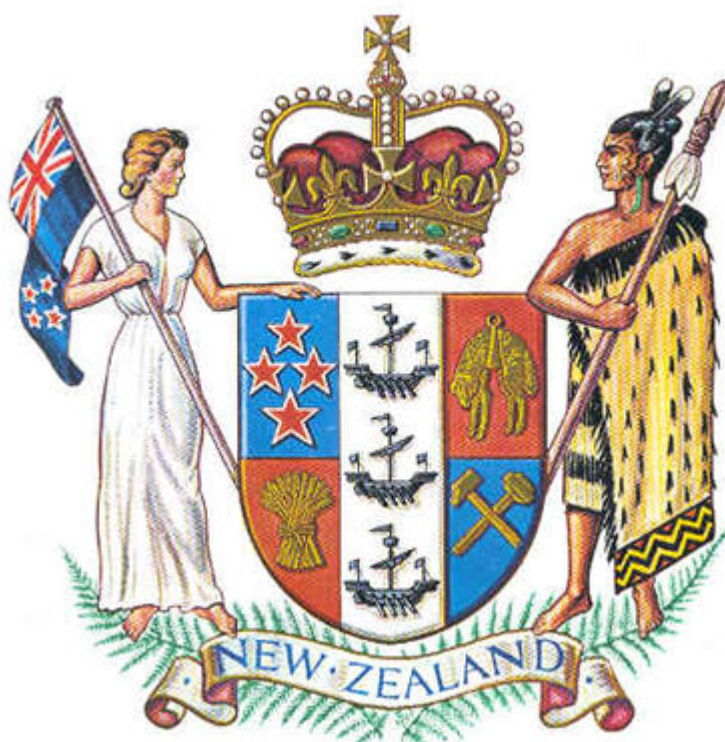


Figure 118
New Zealand Coat of Arms

Surmounting the New Zealand Coat of Arms is the St Edward's Crown, which was used in the Coronation ceremony of Her Majesty Queen Elizabeth II. The crown symbolises the fact that Her Majesty is Queen of New Zealand under the New Zealand Royal Titles Act 1953.⁴³

WIPO found that New Zealand, in a questionnaire response to the Second WIPO Internet Domain Name Process in 2002, stated that New Zealand law did not 'in any

⁴² 'SouthAfrica.com petition launched', *Demys News Service*. 28th May 2003. http://www.demys.net/news/2003/05/28_zs.htm [accessed 9.7.2005].

⁴³ 'New Zealand's Coat of Arms. Aotearoa/New Zealand: Memanatu Taonga', Ministry for Culture & Heritage. <http://www.cultureandheritage.govt.nz/coat-of-arms.htm> [accessed 21.7.2004].

circumstances' preclude the use of country names as part of any special protection for the domain name system.⁴⁴ As a result the WIPO ruled that the dispute over newzealand.com had been brought before it in bad faith. The Government of New Zealand, may well have felt aggrieved at this as they had successfully used the same appeal process to gain control of newzealand.biz in October 2002. In this earlier case, the London based company concerned iSMER, perhaps influenced by sharing the same sovereign in whose name the dispute was brought, had agreed to relinquish the domain and explicitly acknowledged that it was 'in the wrong' in this case having registered the name in bad faith.⁴⁵ It seems that this type of resolution process is less arbitrary, or perhaps more subject to rule based on the litigants, than it otherwise might like to be seen as being.

Internet addresses then can be seen to provide different signifiers in different levels of their domains. Each of these domains is provided with its signified content by separate dialogues. My personal email address is mikekent@iinet.net.au, from the domain name of my Internet Service Provider (ISP) iinet.net.au. This address can be broken into its component levels. The .au at the end signifies and marks that this address is specifically from Australia.⁴⁶ It is signified by the fact that it will have been issued by an Australian organisation, and more than likely represents interests or entities within Australia. In the case of my professional email address mike.kent@popularculturecollective.com, this sign is left deliberately unmarked,

⁴⁴ 'HM The Queen Found Guilty of Reverse Domain Name Hijacking' *Demys News Service*. 20th December 2002. http://www.demys.net/news/2002/12/02_dec_20_queen.htm [accessed 19.6.2004].

⁴⁵ 'HM The Queen Wins Domain Name Dispute' *Demys News Service*. 8th October 2002. http://www.demys.net/news/2002/10/02_oct_08_zealand.htm [accessed 19.7.2004].

⁴⁶ .au has been available from March 1986, having been allocated to Robert Elz of Melbourne University to manage, soon after the domain name system was implemented.

indicating on one level that there is no particular national affiliation,⁴⁷ and no need for any such affiliation.

Welcome to The Popular Culture Collective



Figure 119
The Popular Culture Collective
<http://www.popularculturecollective.com/>
[accessed 10.4.2005]

The next level of the domain represents the broad type of address that is represented. While initially there were only a few of these designators available, such as .com .net .org and .edu, in recent years many more have become available (the .biz from the New Zealand case study being a good example of this new wave). The designators

⁴⁷ Although often this default affiliation is seen as coming from the United States, for whom the marking of .US is virtually never used, having only been released to the general public in 2002, until that time it was reserved for non-federal governments in the United States and educational institutions offering less than four year university degrees.

P. E. Steinberg & S. D. McDowell, 'Mutiny on the bandwidth: The semiotics of statehood in the Internet domain name registries of Pitcairn and Nui', *New Media and Society*. March 2003, volume 5, number 1.

.com and .net used in my addresses are two of the most common, making up 47% and 7% respectively.⁴⁸

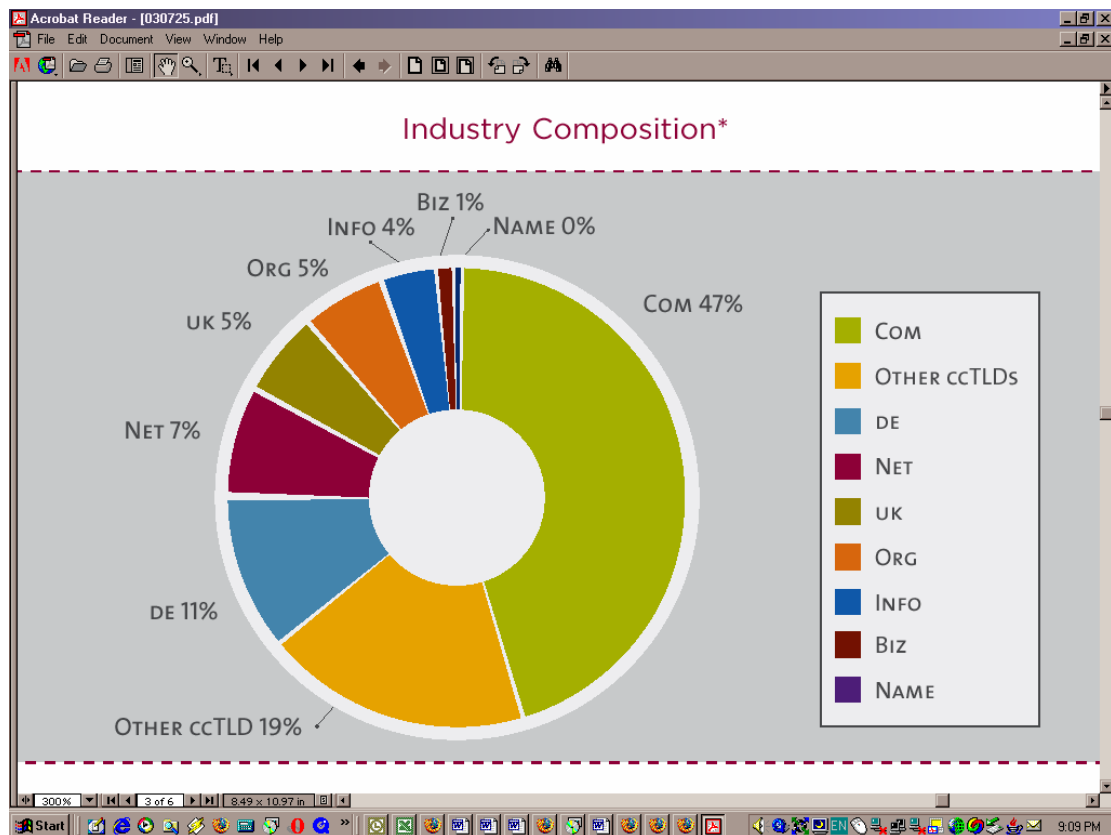


Figure 120
Domain Name Registrations, April 2005
<http://www.verisign.com/stellent/groups/public/documents/newsletter/030725.pdf>
 [accessed 15.7.2005]

The next level of the domain name is the proper name of the domain itself, and is determined at the time of registration. The signified nature of this is closely linked to the law of trademarks off screen, yet the southafrica.com and newzealand.com examples show that this is clearly removed from the national designations such as .au and .tv. Finally when the domain is part of an email address, the signifier of an individual before the @ sign is the signified representation of either an individual, such as mike.kent, or a position, such as admin or info.

⁴⁸ VeriSign, *The Domain Name Industry Brief*. May 2005, volume 2, issue 2.
http://www.verisign.com/nds/naming/domainbrief/2004/report_200406.pdf [accessed 20.7.2004].

These examples of the attempts of Nation States to project their sovereignty and possessions into the digitised Internet environment need to be understood in that new context. Thus in the case of Tuvalu, the country was able to lease out some of its digitised national territory in the form of the .tv domain name. This domain was specifically set-aside for that Nation State, and needed Tuvalu to act before it could become active. Within the .au domain of Australia, it is under Australian law that disputes are resolved over ownership, and as such the domain can be seen to be subject to Australian sovereignty. However once outside that sovereign territory when New Zealand and South Africa tried to assert their respective national ownership of the unmarked .com domain names, they were no longer within that national territory, and the private company resident under the sovereignty of the United States was found to have the superior position by virtue of having been the first to register these addresses.

These are both examples of different, and rival, digital sovereigns negotiating their relationships with each other. However there is something that sets the Nation State apart as a subset of these rival sovereigns. The two key differences between the Nation State and large corporations has always been firstly the exercise of the monopoly of legitimate violence by the Nations State within its territory (the dominion of the East India company over India notwithstanding), and the secondly that the Nation State is comprised of a population of citizens who live within this jurisdiction (as opposed to shareholders). Once digitised on the Internet these distinctions start to become less relevant, as digital citizens are highly independent of their national territory of residence, and violence, legitimate or otherwise, becomes

more complicated to exercise. However the Nation State maintains the residue of the space where it is the dominant political division within the world, and the ability of sovereign nations to influence the digital colonial administration through this residue sets them apart from other competing digital sovereigns in this respect.

Said confirmed that, 'One of the first tasks of the culture of resistance was to reclaim, rename and reinhabit the land.'⁴⁹ In the digital environment this traditional mode and site of resistance transformed. Rather than control of the land and a spatial understanding of what separates the coloniser from the colonised, in this new environment the line between the digital citizen and the digital underclass is determined by access. This access and the quality of the access, determined by the interface of hardware, software, wetware and cultware, becomes the primary point at which the core-periphery line is determined in the Invisible Empire. Unlike traditional resistance, the core and periphery cannot directly experience each other. The underclass lacking access have no way of experiencing the digital environment, and the understanding the potential of citizenship that it embodies. Conversely, as the digital underclass has no digital identities to project, they cannot be experienced within the digital environment, and go unmarked, and unnamed at the digital core. Access is required before any reclaiming, renaming, or habitation is possible. Without access the core periphery line is impermeable.

The Nation State, as a point of resistance to digital colonisation, has a number of strategies to combat this divide. In terms of physical infrastructure, this resistance is evident in Australia through the Universal Service Obligation, and other programs to

⁴⁹ E. Said, *Culture and Imperialism*. London: Chatto & Windus 1993.

provide access to technology throughout society, particularly to those who might otherwise find themselves at the digital periphery. While access to this infrastructure is vital, it is literacy, the understanding of the digital environment, and being able to engage with it, that is the critical barrier to access.

Simon Gikandi noted that at the periphery of the British Empire, it was impossible to experience the 'true' mother England; rather it was projected as an avatar through books and stories.⁵⁰ While able to play cricket in Pakistan, it is not the same experience ideologically or socially as that played at Lords. Rather it is an interpretation of the core at the periphery. For those in the digital periphery this is further magnified by the inability to directly perceive the medium in which the core manifests. The Internet is often portrayed as a haven for explicit sexual content, credit card fraud, extreme political views, and Spam. This serves to keep those at the periphery away from the medium. National attempts to overcome this negative image are evident in legislation acting to regulate content. In the Australian context in particular this was seen as a way to make the Internet 'safe' for the population at large, and encourage broader penetration. The funding of Internet access in public places, such as libraries and schools, is another strategy of resistance aimed at mitigating the effects of periphery for the digital underclass, and promoting understanding and literacy in relation to the technology.

Within this context of resistance, the Nation State's bid to gain control of ICANN⁵¹ and other aspects of the digital colonial administration can now be seen in terms of

⁵⁰ S. Gikandi, *Maps of Englishness: Writing Identity in the Culture of Colonialism*. New York: Columbia University Press, 1996.

⁵¹ The Internet Corporation for the Assigning of Names and Numbers.

resistance as well as an attempt to reassert sovereignty in this new environment.

However, as Bill Clinton notes:

There are a lot of very brilliant people who believe that the nation-state is fast becoming a relic of the past.⁵²

This post-Nation State environment becomes a quite sinister prospect for the future.

However the announcement of the end of the Nation State maybe somewhat premature.

All empires rise and fall over time. It is the actions of those in command of empires in the past that have either impeded or enhanced the speed at which this process occurs. The Invisible Empire has the potential to greatly enhance the lives of people throughout the world. What actions can be taken to prevent the inevitable fall of empire? What agency can act and how, or is it already too late to save the Invisible Empire as it stands? Analogue empires end. They peak in power and then – inevitably – retract and decline. Will this be mirrored in the digital environment, indeed has it already begun? Empires are transitory. Each contains a ‘use by’ date. The ruling institution can influence the timing of this ending, but the Invisible Empire lacks a ruler. While traditional empires have been able to act to prolong their lives, with no ‘Internet Emperor’ how would any such strategy be put in place in the context of the Internet? The Internet may have already reached its natural point of penetration within the United States.⁵³ Recent studies have shown that a staggering 33% of the population in the United States has actively decided that they will not participate, online or seek out any kind of Internet Access. This population has

⁵² *The New York Times*, 25th November 1997.

⁵³ AFP, ‘US Internet growth ‘flattens’ with 63% online’ *The Age*, 23rd June 2004.
<http://www.theage.com.au/articles/2004/06/23/1087844973549.html?from=storyrhs> [accessed 24.6.2004].

decided actively, intentionally, and with consciousness to exclude themselves from this mode of communications. While no figures are currently available for Australia it can be assumed that there must be some analogous group in society.⁵⁴ As the Internet grew, in terms of content and accessibility to the population, it allowed for more people access to the digital core. This growth could be expected to occur naturally to the point at which it reaches a maximum level of penetration within a society acting as its own momentum. As this growth occurs, there is a natural expansion at the core, and a reduction in the numbers trapped on the periphery. However as the penetration level plateaus, the line between core and periphery becomes static and will remain so without some further innovation that leads to greater penetration, or without some kind of outside intervention to work against this type of structural inequality.

The expansion of the Internet is a product of a growth in the accessibility and literacy of the technology in the portion of the population spatially and socially positioned to take advantage of it, particularly those who share a predisposition to engage in the new mode of citizenship. These individuals thus move toward the core of the Invisible Empire. This growth could be expected to continue naturally to the point at which it would meet resistance as the factors effecting access became more a product of literacy than of technology and economics. Once the point is reached where penetration within society has reached its natural peak on the momentum generated by the existing parameters of hardware, software, wetware and cultware, then the border separating the periphery and the core becomes static and impermeable unless

⁵⁴ M. Madden & L Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project 22nd February 2003.
<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevelI&Field=LevelIID&ID=463> [accessed 29.4.2004].

there is outside intervention. The Invisible Empire as an institution holds no intent or will to remedy this inequality. Market forces do not solve social problems. It is a function of the way that the Invisible Empire is determined structurally and activated within the environmental constraints in place. At this point in time, the Nation State is the place where this social and digital inequality is addressed, if it is to occur anywhere.

The way that the analogue sovereigns are able to engage with the Invisible Empire will play a large role in determining at what point the Empire reaches the limits of its expansion, and how long it is able to resist decline. Spam is a good example of this. Currently the prevalence of Spam is starting to threaten the utility of email that has up until this point been the most successful of the ‘killer applications’ of the digital environment.⁵⁵ This may prove to be the Internet’s equivalent of the fall of fortress Singapore to the British Empire before it. Spam has become prevalent despite almost universal condemnation due to the structure of the Internet and its inherent flaws in the nature of capitalist commerce with no sovereign to enact and enforce the law. Attempts by national governments to address this problem until now seem to indicate, that like the guns of Singapore that all faced to sea when the city was threatened by land, that there is an inherent misunderstanding of how to deal with this problem. This metaphor is not meant to suggest that the injustice and inequality cannot be solved. Rather, it requires a different understanding of sovereignty. Currently, no Nation State exerts sovereignty through the area designated by their domain name suffix. This however need not be the case. As with the resistance to

55 M. Madden & L Rainie, *America’s Online Pursuits: The Changing Picture of Who’s Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003. <http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

colonisation through the negotiation of access, the Nation State may prove to be the structure through which the Invisible Empire, and the potential benefits it enables, can be maintained and enhanced. At the edges of the Invisible Empire the Nation State has the potential to again be reinterpreted and provide a basis for a new understanding of digital sovereignty based on these domain name designations.⁵⁶

The Invisible Empire occurs at the interface of the on screen discourse of digital sovereignty and the off screen world of the analogue sovereign. The Empire is influenced by the residue the empires that had gone before it. It appropriates the former modes of citizenship, but it is something different, engaging as it does with the new mode of citizenship embodied in the digital citizen. By examining the slippages and hybridities, looking at how space and the markings of class and colonisation are changed in this environment, this chapter has illustrated some of the implications of this difference.

The manifestations of core and periphery are different within this environment. The traditional markers of space in the traditional core-periphery relationship are missing, replaced with divisions based on literacy, such as is evident through the Amazon.com labour structure. At the same time these on screen relationships can interface with the off screen world, and the current global hegemony manifest in the Empire of the United States and off screen core-periphery relationships. This relationship is illustrated through activities within the MMORPG economies. The digital core and periphery cannot experience each other, from the digital core, class, race, spatial location, and even gender are hidden. The Invisible Empire is an

⁵⁶ For further discussion of this issue: M. Kent, 'Spam Regulation and Australia: National Sovereignty and the .au' *AQ, The Australian Quarterly*. July-August 2004, volume 76, issue 4.

unstable formation, it is unsettling and it requires translation and negotiation, no one can say exactly 'this is what an Invisible Empire is'. It is constantly being renegotiated and moving. Until now, the transition between core and periphery, as happens at the point of access, has been 'naturally' moving to embrace the core. Now that the Internet's growth is tapering, understanding the Invisible Empire for the analogue sovereign becomes particularly critical. Because it is within the Nation State, at that point of access, where race, and class, and gender, and distance once again manifest and where the Nation State can act to influence the position of its citizens within the Invisible Empire and act as a site of resistance to the influence of digital colonisation.

Empires expand and retract. They are unstable. None had the highly fluid foundations of the Invisible Empire based on the fractured nature of capitalism without the rule of law to provide the civil society required for it to function normally. Similarly these previous empires were ruled by intent. The Invisible Empire, controlled by the discourse of digital sovereignty on screen and its interface with the analogue sovereign off screen, lacks this intent. This leaves the structure vulnerable. The rise of Spam, and the inability of the Invisible Empire to overcome this threat is a good example of this. In this case the Empire can potentially look to the Nation State for salvation, however, the Nation State's attempts to act against his problem, up until now have been hampered by a misconception of the environment in which they operate.

Access to the Internet and the recourses at the core of the Invisible Empire are potentially of great value to any members of a society. In Australia where there are

high levels of literacy in English (if not always technology) and a sufficient level of economic development to enable the technology to access the Internet to be relatively abundant, the digital periphery should be in a shrinking minority. What of those who live on the digital periphery, invisibly passing through a society of digital citizens, both unseen, and unable to communicate with those at the digital core. What are the roles and limitations of the analogue sovereign in the digital environment, and how does it become involved in the negotiation of access? Can the digital subaltern speak?

Chapter 8

The Digital Subaltern



Figure 121
The Real Digital Divide
The Economist March 12th – 18th 2005

Turning and turning in the widening gyre
The falcon cannot hear the falconer;
Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.

Surely some revelation is at hand;
Surely the Second Coming is at hand.
The Second Coming! Hardly are those words out
When a vast image out of *Spiritus Mundi*
Troubles my sight: somewhere in sands of the desert
A shape with lion body and the head of a man,
A gaze blank and pitiless as the sun,
Is moving its slow thighs, while all about it
Reel shadows of the indignant desert birds.
The darkness drops again; but now I know
That twenty centuries of stony sleep
Were vexed to nightmare by a rocking cradle,
And what rough beast, its hour come round at last,
Slouches towards Bethlehem to be born?

The Second Coming – William Butler Yeats¹

Introduction

In moving through the final phases of this doctoral research, it is necessary to discard the brightly coloured jacket of the metaphoric digital flâneur. His strolling with purpose allowed problems to be diagnosed and contradictions to be revealed. Yet he must make way instead for the role of the intellectual to act as a translator and advocate for those that fall outside the borders of the Invisible Empire. To critique and influence the existing order rather than observe. Up to this point, the role of the digital flâneur has been appropriate to take a critical and political view of the digital boulevard. This journey began with the historic relationship between telecommunications, the citizen and the state in Australia, at the interface between

¹ W. B. Yeats, 'The Second Coming'. http://www.poetry-online.org/yeats_the_second_coming.htm

digital and analogue worlds as is manifest in the changing nature of the Universal Service Obligation. The implications of this transformation are addressed in Chapter Two: 'The Gates of Empire'. Here the unique construction of Internet access, and the implications of the screen as the point of manifestation for the Internet for each atomised potential user was evaluated. This point is where hardware, wetware, software and cultware are all activated. In Part II attention was turned to an examination of the nature of the digital self, and the construction of the digital citizen. From there, the focus moved to the complex construction of sovereignty that creates the context for the digital citizen to interact with others and the analogue state. As the Internet spans across many national territories. Part III then turned its attention to the role of the Internet in creating an Invisible Empire across the globe, an empire that exists both within and between many Nation States. In each of these studies of the citizen, sovereignty and empire, the development of the concept through time in the analogue environment was used to illustrate how these constructs are transformed in the digital context.

The consequences of these separate yet related components are now reflected in the impact of digital colonisation and the specific construction of the digital subaltern. This chapter is significant in this journey. In previous chapters the focus centred on the illustrating the imperial core of the Invisible Empire. Focus now turns to the colonised periphery to the digital underclass: those who are potentially most disadvantaged by the constructs of Invisible Empire. Without the cultware and literacy to access the Invisible Empire through the screen, the disadvantages are rendered as invisible to the Empire. This generates a new type of subaltern agency, one that is not only without voice or consciousness, but also without tangible

manifestation within the walls of the Invisible Empire. The changing nature of that Empire within Australia – as Internet penetration begins to plateau and the borders of the Empire become more difficult to breach – presents a danger that the place of the digital underclass will become perpetuated. The strategies for resistance to digital colonisation will need to be carefully developed in this changing digital environment.

Former European colonial possessions were able to mobilise the ideologies, institutions and structures of the Nation State imposed on them by their colonial masters, as a place of resistance to that colonial rule and a vehicle through which to seek their independence. It had originally been my intention to focus in this chapter on the role played by the Nation State in its interaction with the Invisible Empire. However, while the Nation State provides a site of potential resistance to digital colonisation, the reason for this resistance, and what dangers are posed by the Invisible Empire, are best illustrated through an examination of those most negatively impacted on by its presence: those who are left without access.

Having constructed the Internet as an Invisible Empire, this chapter draws on postcolonial theory to examine the relationship between the colonised periphery and the core. Off screen postcolonial theory provides a set of intellectual tools for analysing the effects of colonisation and imperialism off screen. These tools can then be used to examine the impact of the Invisible Empire as it manifests in the digital periphery. Within this context the place of the underclass, or in the parlance of postcolonial theory, the subaltern, can be used to illustrate the condition of the digital underclass.

Antonio Gramsci constructed the subaltern in relation to the working class of Italy.² For him, the role of the intellectual in speaking for the subaltern, and providing this group with consciousness of their position, was central to activate his proposed societal transformation. The role of the digital intellectual, intervening on behalf of the digital subaltern becomes crucial to the context where digital core and periphery no longer share any space to manifest; no space where dialogue or translation can occur. Saint Isidore wrote in his *Book of Maxims*:

The conscientious reader will be more concerned to carry out what he has read than merely to acquire knowledge of it. In reading we aim at knowing, but we must put into practice what we have learned in our course of study.³

The role of the intellectual this chapter moves to discussion of contemporary postcolonial theory, the study of the (analogue) subaltern and the role of the intellectual as an agent of intervention. This analogue context is then used as the backdrop to illustrate the nature and impact of colonisation's digital counterpart. The process of digital colonisation is then evaluated along with how it differs from the analogue process. Harold Innis' work linked space and time to transport and communication within the core and peripheral relationships of analogue empires.⁴ This understanding is now further conflated with the link between identity and literacy, and the contextual positioning of culture in determining positioning in relation to the digital core and periphery. Within this construction of digital colonisation, the subaltern agency conferred on the digital underclass becomes particularly significant, as does the role of the (digital) intellectual and their place in

² L. Marks, 'Antonio Gramsci', *The Marxist Quarterly*, October 1956, volume 3, number 4, p. 233. A. Gramsci, 'The Intellectuals', in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23. <http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

³ Isidore of Seville. <http://www.catholic-forum.com/saints/sainti04.htm> [accessed 31.12.2004].

⁴ H. Innis, *Empire and Communication*, Toronto: University of Toronto Press, 1950.

activating potential resistance to digital colonisation. Resistance to the Invisible Empire is activated differently to its off screen counterpart. Rather than trying to exclude the core, it is an exercise in being inclusive of the subaltern. Consciousness or more specifically, an absence of consciousness is a central tenet of the construction of the subaltern. In the manifestation of the digital subaltern, attempts to raise consciousness are particularly problematic in the face of the invisible nature of the subaltern in the on screen environment. The corresponding lack of manifestation of overt markings of disadvantage usually obvious in the off screen environment makes this particularly difficult. To advocate this process rhetorically often resembles advocating the analogue colonial process with the potential danger of promoting the ‘white man’s burden’ of the digital flâneur. The possible pitfalls of this strategy as the Internet becomes increasingly postcolonial concludes the chapter.

The Subaltern

Within Postcolonial Studies, the subaltern has become synonymous with any marginalised or disempowered group, particularly with regard to race and ethnicity. For Spivak in her pivotal essay ‘Can the Subaltern Speak’,⁵ the subaltern represented ‘subsistence farmers, unorganised peasant labour, the tribal and communities of zero workers on the street or in the countryside.’⁶ Spivak used the ritual of *sati* during which a widow would jump or was placed into the burning funeral pyre of her husband, and the banning of the practice by the British colonial administration from 1829, to illustrate the subaltern agency of these women. Local indigenous men

⁵ B. Moore-Gilbert, ‘Spivak and Bhabha’, in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 452.

⁶ G. C. Spivak, ‘Can the Subaltern Speak’, in C. Nelson & L. Grossberg (eds), *Marxism and the Interpretation of Culture*. London: Macmillan Education Ltd, 1988.

protested the new laws, claiming it violated the rights of the women concerned to show their fealty to their departed husbands. Spivak characterised this conflict as ‘white men saving brown women from brown men.’⁷ Gramsci had originally used the ‘subaltern’ to refer to class, specifically the subordinate class in southern Italy.⁸ A formation of class and consciousness following from Marx:

It is not the consciousness of men that determines their being, but, on the contrary, their social being determines their consciousness.⁹

For Gramsci the construction of the subaltern was intimately linked to economic relations and class consciousness.¹⁰ The development of the consciousness of the subaltern and their understanding of their position and solidarity with others in a similar position was central to Gramsci’s intellectual project. Spivak, through the use of Derrida, then added gender, race and colonialism to the understanding of the subaltern.¹¹

Can the subaltern speak? What must the elite do to watch out for the continuing construction of the subaltern? The question of “women” seems most problematic in this context. Clearly if you are poor, black, and female you get it three ways.¹²

As the essay illustrates, ultimately no one can question the women who have actually burned on the pyre. For Spivak, commenting on the context of colonial production, there is no place in which the subaltern can speak. This understanding of the place in which the disadvantaged are given voice becomes a central focus of Subaltern

⁷ G. C. Spivak, ‘Can the Subaltern Speak’, in C. Nelson & L. Grossberg (eds), *Marxism and the Interpretation of Culture*. London: Macmillan Education Ltd, 1988, p. 305.

⁸ A. Gramsci, *The Southern Question*. Translated by P. Verdicchio, Berkley CA.: Bordighera Press, 1995.

⁹ K. Marx, *Selected Writings in Sociology and Social Philosophy*. Translated by T. B. Bottomore, London: McGraw-Hill, 1964, p. 51.

¹⁰ A. Gramsci, ‘The Intellectuals’, in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.

¹¹ S. Gikandi, *Maps of Englishness: Writing Identity in the Culture of Colonialism*. New York: Columbia University Press, 1996.

¹² G. C. Spivak, ‘Can the Subaltern Speak’, in C. Nelson & L. Grossberg (eds), *Marxism and the Interpretation of Culture*. London: Macmillan Education Ltd, 1988, p. 294.

Studies. In Spivak's later essays, the understanding of the subaltern grows to include a variety of disadvantaged groups in the west including women and migrants.¹³ Within this context, there are those who now travel to be colonised: the imported underclass of Turkish workers in Germany. There are accompanying social problems that come from the manifestation of this phenomenon, for example, as experienced by Filipino maids in Singapore and Mexican labourers in the United States, those who now move through space themselves in order to activate and maintain colonial relations. In some respects this can be seen as a logical and almost predictable path for the movement associated with colonisation, from the original colonisers to the peripheral colony, then from the colonised within the periphery, and now the colonised from the periphery moving to the core. For Spivak, there is no space for the subaltern to speak and make their experiences and interests known from their own perspective. They are instead spoken for, largely by those who exploit them. Following the Boxing Day Tsunami in 2004, Herman Kumara, head of the National Fisheries Solidarity Movement in Negombo, Sri Lanka, illustrated this phenomena in an email sent out colleagues around world:

The funds received for the benefit of the victims are directed to the benefit of the privileged few, not to the real victims. Our voices are not heard and not allowed to be voiced.¹⁴

Foucault confirmed that the subaltern was not authorised to talk in the ruling discourse, but rather to be engaged in many discourses of their own.¹⁵ Bhabha also

13 G. S. Spivak, *Traffic & Identity: Further Essays on Culture As Politics*. London: Routledge, 2000. G. S. Spivak, *A Critique of Postcolonial Reason: Towards a History of the Vanishing Present*. Cambridge, MA.: Harvard University Press, 1999.

G. C. Spivak, *Outside in the Teaching Machine*. London: Routledge, 1993.

B. Moore-Gilbert, 'Spivak and Bhabha', H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 452.

14 N. Klein, 'The Rise of Disaster Capitalism', *The Nation*. 2nd May 2005.

<http://www.commondreams.org/views05/0415-30.htm> [accessed 4.5.2005].

15 M. Foucault, *The History of Sexuality. Volume One: An Introduction*. Translated by R. Hurley, London: Allen Lane, 1978.

describes the interaction between colonised and coloniser, noting that it is not always adversarial. He constructs a third space where mediation between the dominant and the subordinate occurs.¹⁶ Both the coloniser and colonised share physical space, if not the literacy and authority, where it is possible to communicate. This understanding of a third space, a place where the subaltern can interface with the ruling discourse will become highly problematised when appropriated into the digital environment; particularly with an understanding of the screen as a gateway, traversed only through the literacy of the individual user.

The digital subaltern manifests in a significantly different environment to their analogue counterpart. Young describes the construction of the subaltern:

The concept of the subaltern ascribed a new dynamic political agency to those who had formerly been described as the wretched of the earth, the oppressed and the dispossessed. By means of the subaltern the oppressed assumed political agency to become the subject of history no longer its abject object.¹⁷

Gramsci advocated that the path to empower the subaltern, providing them with a place and authority to speak, required the development of class-consciousness, and specifically a solidarity within the working class. In his case the construction of a common cause between industrial factory workers in the north of Italy and the peasant farmers of the south¹⁸ Spivak significantly provides no remedies for subaltern agency,¹⁹ rather she is descriptive of the problem. For Young it would seem that the mere understanding of the circumstance of the subaltern is empowering.

16 B. Moore-Gilbert, 'Spivak and Bhabha', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 463.

17 R. J. C. Young, *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001, p. 355.

18 L. Marks, 'Antonio Gramsci', *The Marxist Quarterly*, October 1956, volume 3, number 4, p. 233.

19 B. Moore-Gilbert, 'Spivak and Bhabha', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 464.

The Intellectual

Antonio Gramsci assumed a need for the underclass to be represented in his writings on the place of the intellectual. Gramsci theorised that in order for a new class-consciousness to enable the subaltern proletariat to take their, in his view, destined place as the dominant class in Italy, it needed to overcome existing divisions into different trades. Writing from prison, where he spent the last years of his life after being sentenced by the Mussolini-led Italian government, Gramsci wrote over three thousand pages in his notebooks which were later smuggled out and published. He devoted an entire volume of these writings to the role of the intellectual. For Gramsci, intellectuals are leaders. As he explained, 'All men are intellectuals, one could therefore say: but not all men have in society the function of intellectuals.'²⁰ Gramsci postulated that there were two types of intellectuals, the traditional intellectual and organic intellectuals. Traditional intellectuals represent the academy, priests, and writers. While they might see themselves as autonomous to the ruling class within Gramsci's construction these intellectuals existed within, and maintained the existing social order.

every "essential" social group which emerges into history out of the preceding economic structure, and as an expression of a development of this structure, has found (at least in all of history up to the present) categories of intellectuals already in existence and which seemed indeed to represent an historical continuity uninterrupted even by the most complicated and radical changes in political and social forms.²¹

20 Presumably women are incorporated into this determination as well.

A. Gramsci, 'The Intellectuals', in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.

<http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

21 A. Gramsci, 'The Intellectuals', in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.

<http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

This analysis follows from Marx that ideas of the dominant classes tend to be the dominant ideas.²² Gramsci's second type of intellectual, the organic intellectual, was seen as coming from within a class, and providing that class with consciousness and agency. The organic intellectual came from outside the existing social order to challenge its assumptions and power structures.

Every social group, coming into existence on the original terrain of an essential function in the world of economic production, creates together with itself, organically, one or more strata of intellectuals which give it homogeneity and an awareness of its own function not only in the economic but also in the social and political fields. The capitalist entrepreneur creates alongside himself the industrial technician, the specialist in political economy, the organisers of a new culture, of a new legal system, etc.²³

For Gramsci, in order to create the class consciousness needed to unite the working class within Italy, these organic intellectuals needed to not just work within their own class, but also to contest ideas of the traditional intellectuals, and convince them of the correctness of their cause; to colonise them and bring them on side with the struggle of the working class.

Spivak constructs the concept of the intellectual along similar lines. However she views the attempts by western intellectuals to critique neocolonialism and act on behalf of those most oppressed by the system as a failure to take into account their own place within the existing system of oppression: Spivak specifically criticises Deleuze and Foucault in this context. Moore-Gilbert notes that within this critique these intellectuals are:

²² Z. Bauman, *Liquid Modernity*. Cambridge: Polity Press, 2000.

²³ A. Gramsci, 'The Intellectuals', in *Selections from the Prison Notebooks*. Translated and edited by Q. Hoare and G. N. Smith, New York: International Publishers, 1971, pp. 3-23.
<http://www.marxists.org/archive/gramsci/editions/spn/problems/intellectuals.htm#nD> [accessed 14.6.2005].

assuming that they are transparent vis a vis the objects of their attention. In other words such 'radicals' too easily suppose that they are outside the general system of exploitation of the 'third world' – in which western modes of cultural analysis and representation (including 'high' theory itself) and institutions of knowledge (such as the universities in which such theory is characteristically developed) are in fact deeply implicated.²⁴

By trying to provide a voice for the subaltern, these theorists are instead standing in their place, and representing or speaking on behalf of the subaltern themselves. They follow Gramsci's understanding of the natural intellectual, while thinking that they are outside the existing social order, when they are in fact implicated in maintaining it. Spivak is also engaged in this process in the very act of describing its manifestation in others. While the intellectual may play a role in the perpetuation of the existing order, they are still best positioned to speak for the underclass.²⁵ Ultimately it is the role of the intellectual, following Gramsci, to provide a voice for, and consciousness of, the subaltern – his will be particularly true for the digital subaltern.

The borders of Invisible Empire are porous. The transition from core to periphery, or the journey from the colonised at the periphery to the citizens at the core of the metropolis is achievable. Knowledge and literacy provide the new markers, and these have the potential to be overcome more easily than the analogue subaltern markers of race, class, gender and geography. Within this context the Invisible Empire can be seen as part of the process described by Kwame Nkrumah:

neo-colonialism is not a sign of imperialism's strength, but rather its last hideous gasp.²⁶

24 B. Moore-Gilbert, 'Spivak and Bhabha', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 453.

25 B. Moore-Gilbert, 'Spivak and Bhabha', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000, p. 453.

26 K. Nkrumah, *Neo Colonialism: The Last stage of Imperialism*. London: Thomas Nelson and Sons Ltd, 1965, p. 253.

The Invisible Empire creates its own form of invisible colonisation, which generates a very different relationship between those within and outside its borders. These relationships between the empowered and disempowered can be better illuminated through focusing attention on the consequences of the Invisible Empire for those at its periphery: those who are without voice, and crucially without consciousness of their relationship with the Invisible Empire. These individuals, atomised and disempowered – the digital underclass – are a product of the discourse of power and entitlement constructed by the Invisible Empire.

How then does the understanding of the Subaltern change once the Invisible Empire becomes an application of imperial power? The digital underclass, those without access to the cultware, needed to access the Internet, and not only to project an identity through the screen. Currently, they are not seen from on screen. They do not share a common space in which dialog can occur. They are trapped in a periphery where the centre cannot be experienced and reinterpreted. Theories of colonisation and the analogue subaltern were modernising, grand narratives with big answers to big problems. The digital subaltern presents a post-modern strategy, fickle and fragmented, a person can be empowered in one way and disempowered in another; moving quietly and quickly move between those states.

The Digital Subaltern

The digital subaltern is significantly different to its previous analogue construction. However the potential to reproduce two separated strata of citizens remains.²⁷ As Paul Virilio warns:

The society of tomorrow will splinter into two opposite camps: those who live to the beat of real time of the global city, within the virtual community of the “haves”, and the “have nots” who survive in the margins of the real space of local cities, even more abandoned than those living today in the suburban wastelands of the Third World.²⁸

The digital subaltern like their analogue counterpart has no place in which to speak and no consciousness of their position. Unlike their analogue counterparts however they do not have any shared space where a potential dialogue with those in power is possible. With no shared space with the coloniser the digital subaltern has no ability to perceive what it is that they are excluded from. Their inability to access the Internet obscures their view of that from which they are excluded, and prevents the core from being able to perceive their exclusion. This results in an environment for the digital underclass where they are denied a voice, much like their off screen counterparts (and obviously the overlap between these two groups will be not insignificant). They are as invisible within the borders of the Invisible Empire, as the empire is to their perception facing a screen without the literacy to activate its potential as a gateway. The screen becomes like the funeral pyre for the *Suttee*, messages do not come from the other side to explain the subaltern's experience in their own words.²⁹ They can only be spoken about and for by others within the

²⁷ Kroker also warns of a potential class division between the working class: ‘ground in localised space’, and the technocratic lass ‘floating away in the virtual zone of hyperspace’

A. Kroker, ‘Virtual Capitalism’, in S. Aronowitz, B. Martinsons & M. Menser (eds), *Techno. Science and Cyber Culture*. New York: Routledge, 1996.

²⁸ P. Virilio, *Open Sky*. London: Verso, 1997.

²⁹ This is in no way meant to underestimate the horrific nature being burned alive.

Invisible Empire, and while they remain outside of access, this dialogue will occur without their experience.

There is a spectrum of Internet access. Recent Pew Internet and American Life research³⁰ confirmed that the 58% of Americans that has access in 2003 stretched from intermittent users through to those with access to broadband Internet at home. Similarly the 42% of those who do not have access fall into different categories. Approximately eight percent of the population the study labels as 'net evaders', these individuals are aware of the Internet, and vary from those who have others translate the Internet directly for them by doing online research and communications on their behalf, through to those who actively reject the Internet and avoid all contact. A second group are labelled 'net dropouts', they made up approximately 17% of the population. These individuals have previously been online, but have now fallen outside of access, most often due to hardware problems, with either their computer, or service providers. A final group, labelled 'truly disconnected' in the report have no direct or indirect contact with the net. Not only do they not have access, but they do not associate with others who have access. This group, consisting of nearly a quarter of the entire population at 24% are the digital subaltern.

30 A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

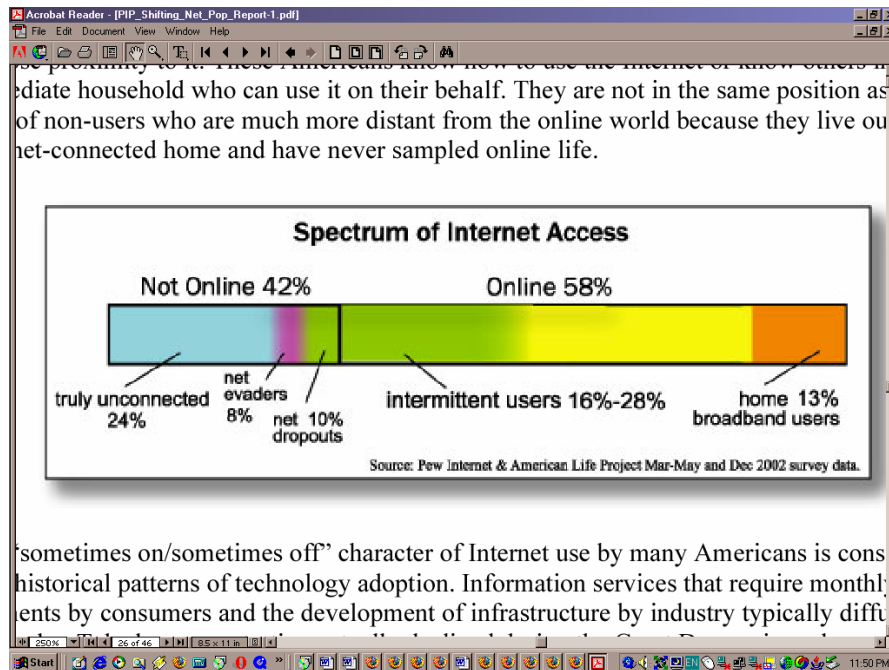


Figure 122

The Spectrum of Access

http://www.pewinternet.org/report_display.asp?r=88
[accessed 5.7.2005]

When the Empire is invisible, it is different to conceptualise and create concrete resistance to its influence. Its central power and authority is deeply fragmented as each individual makes their own interpretation of and contribution to, the discourse of digital sovereignty and citizenship. The postcolonial theoretical construction of the subaltern recognises the fragmentation of class structure at the periphery, just as the broader area of study recognises the fragmented structure of the core. The Invisible Empire, and the discourse of digital sovereignty, share and augment this understanding of a splintered structure, just as the digital subaltern represents an atomised and removed underclass, no longer directly marked by class, race and gender. These concepts are activated on the analogue side of the screen.

Foucault theorised the analogue subaltern as not having authority within the discourse of control in which every one speaks and that exists all around them,³¹ for the digital subaltern this discourse takes place in a venue that the subaltern has no experience of. This greatly limits the potential for Bhabha's third space in which translation can occur or common ground to be found, a place where this might occur exists only through the screen. The edge that separates core and periphery in the Invisible Empire is sharp and small.

Gramsci constructed the south of Italy as having the status of exploited colonies – what Lenin characterised as Internal Colonies.³² This terminology becomes useful for describing those who exist in the neo-imperialist fringe of Invisible Empire. Gramsci pondered how to have the proletariat factory workers in the north of Italy make common cause with the peasant farmers in the south in the context of a class struggle. Whereas the south of Italy represented a geographic region within the borders of the nation, those who are the subject of digital colonisation are harder to group geographically. People access the Internet on their own as atomised off screen individuals. Colonisation consequently becomes itself an atomised experience. Those on the outside of the borders of Invisible Empire are left without voice to express their position on screen where the Invisible Empire manifests, and they are also without consciousness as a group, united unknowingly only by their ignorance of what they have no access to. Gramsci's understanding of political control, moving to civil control is now further enforced as the whole, now internalised, structure of

³¹ M. Foucault, *The History of Sexuality. Volume One: An Introduction*. Translated by Robert Hurley. London: Allen Lane 1978.

M. Foucault, 'My Body, This Paper, This Fire', *Oxford Literary Review*. 1979, volume 4 issue 1, pp. 9-28.

³² V. I. Lenin, 'The Development of Capitalism in Russia: The Process of the Formation of a Home Market for Large Scale Industry', *Lenin Collected Works*. London: Lawrence and Wishart, 1968.

domination and empire vanishes, invisibly, behind each individual screen. The fragmentation of both the colonising core of empire, and the location and understanding of the individual identity within digital colonisation, can place themselves on a continuum with process that have been occurring for the last three millennia. The digital subaltern however is confronted with the barrier of the screen between an atomised individual and the gates of the Invisible Empire. This creates a relatively clean black and white line through the increasingly grey area of postcolonial relations within the borders of the Invisible Empire.

Consciousness

Central to the construction of the subaltern both on and off screen is their lack of consciousness of their position. For Marx, the role of the party was to raise the consciousness of the workers. Those without political consciousness, the lumpen proletariat, had to be made aware of their exploitation and become politically aware as a precursor to a proletarian revolution.³³ This process, with all involved gathered together on the factory floor, seems relatively easy when compared to the process that Gramsci sort to initiate in raising consciousness amongst the geographically and socially dispersed peasantry of Southern Italy and their industrialised, potential class allies in the north.³⁴

For the digital subaltern, attempts to raise consciousness are further complicated, by their invisible presence both on the screen and also moving through the off screen

³³ K. Marx K. & F. Engels, *The Communist Manifesto*. Harmondsworth England: Penguin Books, 1967.

³⁴ A. Gramsci, *The Southern Question*. Translated by P. Verdicchio, Berkley CA.: Bordighera Press, 1995.

population. There is no one to act as a translator as is the case for the ‘net evaders’, or direct experience of the ‘net dropouts’. In order for any translation to occur, a way needs to be found to locate and communicate with this group, to translate from the core of Empire, and facilitate the development of the matrix of access that will allow these excluded the potential to have access at the screen. The invisible and dispersed nature of the subaltern can be seen as following the trend at the periphery over time as the subaltern is further removed from the experience of the core. The core of Empire, on the screen, can similarly be seen to follow this trend to be further removed and abstracted from the periphery. The truly disconnected have no experience of their exclusion, further complicating attempts to provide and enable any consciousness of their position.

For Gramsci’s organic intellectual to be able to speak for the subaltern, to act as a translator, they must themselves possess the literacy for access. Yet, the digital environment changes the strategy for the intellectual as well. Translating for culture and literacy in the current increasingly post-industrial environment requires different strategies to translating between geographic location and class in the industrial environment that confronted Marx and later Gramsci. The role of the intellectual must be to translate the nature of both the digital metropolis at the core and the digital subaltern at the periphery and advocate for intervention within the political structure of the Nation State.³⁵ Cultural Studies have a history of advocating social justice and responsibility, particularly critiquing the existing order and acting as an advocate for the excluded, the underclass. It has focused on the relationship between

35 Bech and Shirin-Sahy’s 2004 study showed the value of mediators helping to implement national and International access initiatives at a local level.
E. Bech & S. Shirin-Sahay, ‘On the Margins of the “Information Society”: A comparative Study of Mediation’, *Information Society*. 2004, volume 20, issue 4.

cultural practice and power. Providing a voice for those who share no common ground with those on screen, no place in which translation can occur otherwise. The plight of the digital underclass calls for a new digitised application of this intervention.

Marx identified the role of the Nation State and nationalism in acting as a focal point for resistance to colonial domination.³⁶ Within the Invisible Empire, the Nation State, while it does have influence, is a construction of the analogue, not digital, world. The space that binds nations in the Treaty of Westphalia does not manifest on the screen. The Internet passes across and within national borders. Therefore, a geographic understanding of nationalism will need to be reinterpreted in order to provide resistance to the influence of the Invisible Empire. The Nation State has the potential to be a vehicle for intervention for the digital subaltern. Resistance to Invisible Empire, rather than trying to remove the influence of the core from the periphery, this becomes an attempt to include the peripheral digital subaltern in the core. Rather than an armed struggle for geography it is a cultural struggle for literacy. Within this struggle, the place of the intellectual to act as a translator for the subaltern is crucial to influence public policy and create the necessary conditions for the equitable distribution of access to the digital core. The strategies required to intervene successfully for the digital subaltern will be different to those of providing Internet access more generally through the population. To facilitate these changes, the intellectual must act to translate for the subaltern, both their voice for the Invisible Empire, and the discourse of the Invisible Empire for the subaltern, they must also

36 K. Marx, 'Outline of a Report on the Irish Question to the Communist Educational Association of German Workers in London, December 1867', *Marx and Engels on Ireland*. Progress Publishers, Moscow, 1971, pp. 126-139. <http://www.marxists.org/archive/marx/works/1867/12/16.htm> [accessed 12.7.2005].

act as an advocate of change of the existing order, activating the Nation State as a site of resistance to that order.

The Nation State holds myriad functions and roles of resistance to the Invisible Empire. It must have intent to act as the site of resistance, as there is no inherent function of resistance activated by the Nation State. Unlike the discursive nature of Internet Sovereignty, the analogue sovereigns of the Nation State can act with intent, and be selfishly motivated to act in their own (and hopefully their nation's) best interests. The invisible nature of the Empire makes this public policy difficult to conceptualise and implement. The Nation State becomes the node for resistance, the only site where access for those at the periphery who are not part of the now ending natural growth of the medium, can be negotiated. It is in the interests of the Nation State's legislators and leaders for this to occur for a number of reasons.

Economically, the more of the Nation State's citizens who participate at the core of the Invisible Empire, then the greater the level of prosperity and participation within that state. Access to the new trade route of the Invisible Empire provides for a greater number, and more efficient, consumers for the economy. Those who are able to compete, and manifest, in the economy of the core will be more rewarded than those who remain at the periphery. Additionally, the economic structure of the Invisible Empire overlays existing patterns of disadvantage. If ignored, it will have the effect of enhancing the level of polarisation within any given society between the well off and the needy.³⁷

³⁷ M. Madden & L Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003.

The ability to readily communicate through numerous projected selves on the Internet provides an efficient means of delivering information and services between the government and the people. However for this to occur on an equitable basis, and more importantly to be able to be targeted at those most in need, it is important that access to this medium is distributed throughout society. Additionally, the relationship between the state and communications both between the state and its citizenry, and between citizens, has a direct relationship to the quality of democracy.

People at the periphery cannot be seen from the core. They are written about – not to. They have no on screen presence. As such, they start to lose their relevance to the trade routes of the Invisible Empire (except as a source of exploited labour). They are not useful or needed for the economy. They become doubly and triply colonised because they lack the literacy to interact with this new mode of citizenship. They are completely cut out of the post fordist economic relationships. Similarly those at the periphery cannot experience the core. They are (in effect) rendered Subalterns, those who are subordinate or dominated, but who are unaware of their circumstance. They are without voice, and without consciousness.

The Invisible Empire thus creates an environment where those at the periphery, already without consciousness of their circumstance are unable to perceive the Empire that causes their disadvantage. These individuals then manifest within the geography of the Nation State, which while having the potential to act as a site of resistance to digital colonisation, will have difficulty to activating this resistance as

the digital subaltern are disguised within the rest of the (online) population. In order to enable this potential resistance there will be a need for translation, both for an agency to speak on behalf of the digital subaltern and to speak to the subaltern, to make them aware of their disadvantage and the Invisible Empire, to develop consciousness of their circumstance and position. The potential for the intellectual to act in this role is the topic of the next chapter.

Until recently, the drive for Internet penetration focused on promoting the benefits of Internet access, and facilitating the provision of physical infrastructure, assuming, correctly, a large public potentially wanting to be online, but not yet within the borders of Invisible Empire. This group was predisposed to getting access, existing within sufficient bounds of cultware, literacy, economics, and with the potential to find useful content and communication capability online. To drive the take-up of the Internet required access to fall within the economic and cultural parameters, and to have access to the infrastructure to provide carriage for, and interpretation of, the TCP-IP protocols. Different strategies to encourage Internet take up have focused on these different areas. However, Pew research has shown through its survey results in the United States that this public has been largely included within the Internet, and that growth in the penetration of the Internet has subsequently slowed as the market ‘matures’ and the Internet becomes ubiquitous throughout society.³⁸ The slowing of Internet growth indicates that those citizens with the predisposition for access, the latent cultware to activate the Internet, have been or will soon be reached and included. It is reasonable to conclude that a similar process will, and is, occurring in

38 M. Madden & L Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project 22nd February 2003.
<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

many countries with similar Internet penetrations.³⁹ Different countries will have distinct levels of a predisposed population for access, depending on their wealth, infrastructure and level of education within the population. The borders of Invisible Empire are becoming less porous. Those left behind walking invisibly through the population off screen as the digital subaltern. The concern with regard to Internet access must now move from a position of trying to encourage those who could have access but have not taken it up, to those who lack the cultware and the literacy to engage with the digitised environment. In this situation, the disadvantage of exclusion becomes the focus over the benefits of inclusion. It is the subaltern, not the delayed adaptors, that requires our attention.

Raymond Williams, one of the influential foundational scholars of Cultural Studies, believed that 'language and communication were where we lived, not just what we use to live'.⁴⁰ When the subaltern is excluded from the Invisible Empire, where so much interaction and communication occurs for the rest of the society, they begin to inhabit a separate and disadvantaged world from those around them. This exclusion is compounded as Internet access becomes more ubiquitous. While the Internet produces much that is unique to that environment, it also mirrors many off screen functions. When the Internet has a relatively low penetration throughout society

39 Research from Nielson//Netratings in March 2005 indicates that Australia is potentially behind the United States. The research classified Australia, along with Hong Kong, France, Japan and Italy as one of several emerging Internet markets. However the research focused on the percentage growth of time spend online, rather than rates of access or absolute time spent online (of which Hong Kong, Japan and France were the top three in absolute terms). So this does not necessarily mitigate against the dangers of an enduring digital underclass raised in the Pew Research of 2003.

J. Fan, 'U.S. Internet Usage shows Mature Growth, Forcing Innovation of New Web Offerings, According to Nielson//Netratings', *Nielson//Netratings*. 24th March 2005. <http://direct.www.nielson-netratings.com/news.jsp> [accessed 24.3.2005].

M. Madden & L Rainie, *America's Online Pursuits: The Changing Picture of Who's Online and What They Do*. Pew Internet & American Life Project, 22nd February 2003.

<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

40 T. Eagleton (ed), *Raymond Williams: Critical Perspectives*. Cambridge: Polity Press, 1989, p. 9.

much of this mirroring will be supplemental in nature. Banks will have online facilities as well as branches in bricks and mortar. Government information and services may develop an online component, but once again this will mirror services that exist off screen. However as the Internet becomes part of popular culture and immersed in social practices, many of the off screen alternatives disappear, to the disadvantage of those who cannot access the on screen alternatives. Similarly there are aspects of the Invisible Empire that will not have off screen equivalents. Access to the Internet becomes assumed in popular culture, whether this be participating in debates on current affairs through the *Foreign Correspondent* site at the ABC,⁴¹ or being able to access the Web-cams in a *Big Brother* house.⁴² Google⁴³ and Ninemsn⁴⁴ are spaces that exist only on screen and represent cultural spaces that completely exclude the digital subaltern. While access is assumed for ten percent of people, this assumption will not be a major disadvantage for the remaining ninety percent. However once the situation is reversed the disadvantage of the remaining minority without access, and the exclusion from the rest of society is magnified far beyond that when it is only a small minority with access, as with the early adaptors.

Lury argues that in a consumer society, the ability to consume is a fundamental human right.⁴⁵ As consumption moves online, then the ability to consume online follows in order for individuals to be able to fully participate in society, whether this consumption is goods and services, or popular culture, this then becomes an area of the exclusion of the digital underclass. Much has been written about the notion of the

⁴¹ <http://www.abc.net.au/foreign/>

⁴² <http://bigbrother.3mobile.com.au/>

⁴³ <http://www.google.com.au/>

⁴⁴ <http://ninemsn.com.au/>

⁴⁵ C. Lury, *Consumer Culture*. Oxford: Polity Press, 1996.

digital divide. The understanding that with differing levels of access to the Internet, there develops a divide in society between the information haves and the information have-nots that will mirror and amplify the separation between material haves and have-nots, and that like the latter the greater this division between the top and the bottom the worse society is off as a whole as it threatens social cohesion and challenges social justice.

Moving beyond the impact of an individual's access requires an understanding of the penetration and distribution of literacy and cultware. Such inequalities are often spoken about in economic terms,⁴⁶ thus looking at the creation of online consumers through a higher rate of Internet access penetration. It can also be seen as a measure of the wealth of a society, and how economically competitive it is in relation to others. Thus the debate on whether Australia had an 'old economy' or a 'new economy'⁴⁷, while looking at the types of goods and services produced by the economy, also looked at the penetration of computers and Internet access into both homes and businesses. This 'branding' of the economy and society as being 'online' has in some cases been one of the explicit driving forces behind public policy initiatives. A good example of this was the move to have online voting for two extraterritorial upper house seats in the South Australian Parliament, which was

46 As Bourdieu critiqued this position once again focused on capital that can easily be turned into tender rather than the more complex constructions of social capital. P. Bourdieu, 'The 'Forms of Capital'', translated by R. Nice, http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten* (Soziale Welt, Sonderheft 2), edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98. [accessed 15.9.2004].

47 'Fed: Old Economy perception not helping dollar: McMullan', *AAP*. 14th March 2000.

'Feb: Old economy view of Australia is not accurate: Costello', *AAP*. 15th March 2000.

G. Zappala, 'The Economic and Social Dimensions of the New Economy', *Australian Journal of Social Issues*. 1st November 2000.

driven by the image of that state that such a move, even at the proposal level would help to create.⁴⁸

The greater the penetration of Internet access across a society the greater utility that comes from putting government, goods and services online, and the greater potential return for commercial activity online as the 'market size' for these goods and services grows. By making government services available online, the government has the potential to wind back its services in the off screen landscape, and redirect the resources that would have been used to provide the services in other areas. This is particularly true in cases such as Australia where the government has been a leading proponent, encouraging the use of the Internet to provide goods and services and leading by example. It has not only been taking advantage of an existing widely distributed medium or the economic benefits of engaging electronically with contractors and suppliers, but rather it has been actively building the skills and expertise in the area, growing the country's culture. Related to this process is Lury's notion of the 'right' to consume. If the government is seeking to promote businesses moving into an online environment, then the government has a responsibility to help disempowered people in society have access to engage with those businesses and the goods and services that they provide.

While government programs within Australia have been active in promoting Internet access, the development of the residue digital subaltern will impact on the effectiveness of these programs. While it is the federal government with the responsibility for the regulation of telecommunications, many activities specifically

⁴⁸ T. Culter, *Information Economy 2002: Delivering the Future*. Adelaide: State Government of South Australia. August 2000.

promoting literacy in relation to the Internet are run through local libraries, funded by local councils. At this level of government, the resources available are unequally distributed. Councils in more wealthy areas have more money at their disposal, derived from local rates. As such, if these local governments continue to play a major role in providing intervention for the subaltern, for example through local libraries and senior citizen centres,⁴⁹ there is the potential for off screen disadvantage to be reflected on screen, as the subaltern becomes a function of socio-economics and geography.

The identity of those who remain outside of the Invisible Empire, those without access, is changing. Providing and encouraging the take up of Internet access, until this point, has involved the promotion of the service amongst the majority of the population who live within a context of cultware that supports access and have the literacy to activate that access, the digital subaltern will require different strategies. Effective intervention is still possible. Inequality based on class, race, gender and geography is often entrenched. While class is an indicator of likely Internet literacy for an individual, literacy is a much more dynamic and changeable condition.

49 This is further exacerbated by the concentration of particular demographics that are less likely to have access within particular regional councils. The concentrations of elderly people in both Mandurah in Western Australia, and Eastbourne in the United Kingdom being typical examples of this state of affairs.

The White Man's Burden of the Digital Flâneur?

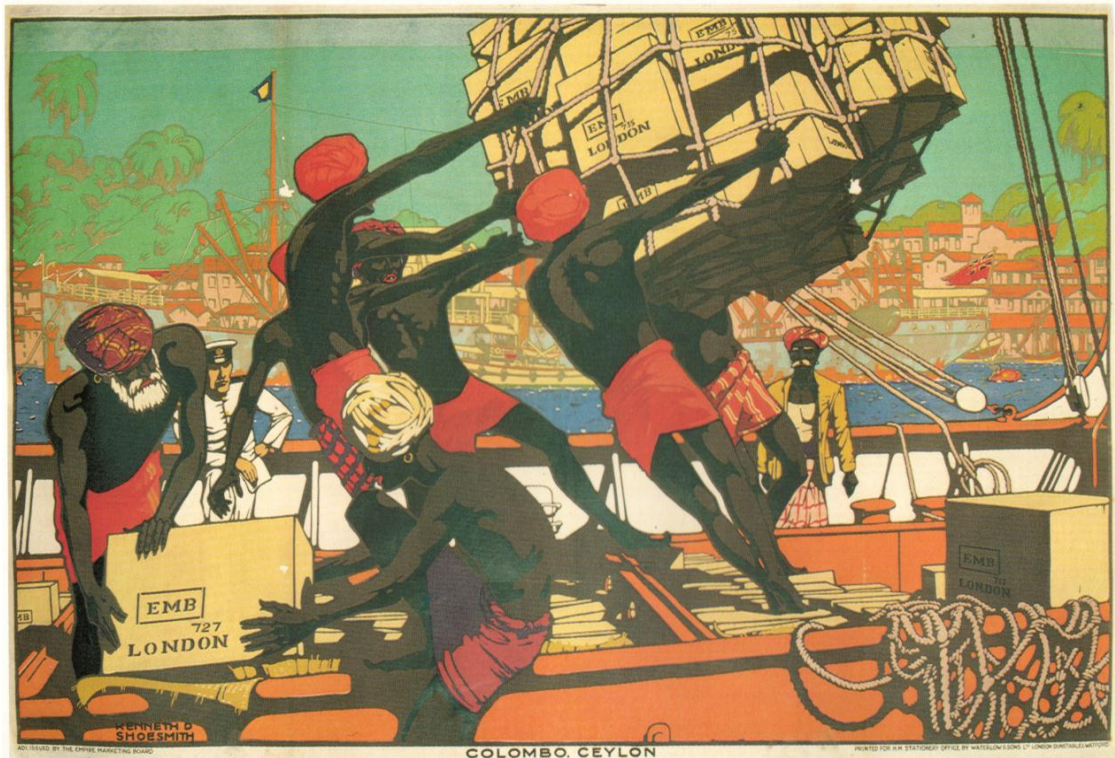


Figure 123
Advertising Poster from the Empire Marketing Board, December 1928

There are a number of criticisms of the approach advocated throughout this doctorate, with the aim to intervene in digital and analogue inequalities. In activating resistance to the Invisible Empire for the subaltern, the intellectual is actually advocating an expansion of empire, extending the boundaries and jurisdiction. There must be overt research in the condition of the digital subaltern, constructing policies, literacies and strategies to intervene and alleviate the potential disadvantage. This intervention is in stark contrast to the tradition postcolonial critique that speaks to resistance of empire, and the expulsion of the influence of the core.⁵⁰ The process of advocating the expansion of Invisible Empire, especially from one who is writing at

⁵⁰ As Said was quoted in the previous chapter 'One of the first tasks of the culture of resistance was to reclaim, rename and reinhabit the land.' E. Said, *Culture and Imperialism*. London: Chatto & Windus 1993, p. 273.

the core of that empire, has an uneasy resonance with advocates of analogue empire.

This is the white man's burden of the digital flâneur.

Take up the White Man's burden--
No tawdry rule of kings,
But toil of serf and sweeper--
The tale of common things.
The ports ye shall not enter,
The roads ye shall not tread,
Go mark them with your living,
And mark them with your dead.

Take up the White Man's burden--
And reap his old reward:
The blame of those ye better,
The hate of those ye guard--
The cry of hosts ye humour
(Ah, slowly!) toward the light:--
"Why brought he us from bondage,
Our loved Egyptian night?"

Take up the White Man's burden--
Ye dare not stoop to less--
Nor call too loud on Freedom
To cloke your weariness;
By all ye cry or whisper,
By all ye leave or do,
The silent, sullen peoples
Shall weigh your gods and you.

Take up the White Man's burden--
Have done with childish days--
The lightly proffered laurel,
The easy, ungrudged praise.
Comes now, to search your manhood
Through all the thankless years
Cold, edged with dear-bought wisdom,
The judgment of your peers!

From *The White Man's Burden* – Rudyard Kipling 1899⁵¹

⁵¹ Modern History Sourcebook. <http://www.fordham.edu/halsall/mod/Kipling.html> [accessed 22.1.2005]. While the poem was written in response to the United States take over of the Philippines following the Spanish American War it offers contemporary resonance in both Iraq or Afghanistan.

What are the consequences of subaltern access to the Internet? Beyond consumerism, would the Internet change in a way that is not desirable for the empowered? In India and Africa, the formerly colonised changed in ways outside the ideologies and historical parameters of the former coloniser. This discursive dissonance was evident when the early adaptors had to give up their exclusive hold on the Invisible Empire, the realm may change again in unexpected ways once those currently without voice are allowed to manifest.⁵²

Once through the gateway of the screen the subaltern, the disempowered, starts to engage in a space shared with the empowered. In such a space, translation becomes possible. The two collectives and ideologies dialogue in the same environment and become aware of each other's existence. While the empowered may try to resist any challenge to their existing authority, this resistance will develop a manifest existence for the disempowered. Consciousness is the necessary first step to resistance. It is not possible without access to the gates of the Invisible Empire. The level of authority of each individual voice will determine its level of influence on the discourse of digital citizenship/sovereignty for another.

This chapter, and the overarching configuration of this thesis, enacts work in the intellectual style that Spivak critiques. This concern has some significant

52 Of the non-Internet users surveyed by Pew Internet and American Life Project in 2002 only 40% thought that they would go online at some stage. When the non-users were asked what they thought of the Internet there was a significant shift from the answers of those who were already online. 20% did not know how to describe the Internet as opposed to 5% for those who had access. While 61% of Internet users used the library as a metaphor to describe the Internet, only 36% of non-users used the same description.

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003. pp.14-16.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

consequences. In seeking to speak on behalf of the subaltern, there is the potential for less emphasis to be focused on acting as a translator, trying to include the digital subaltern in on screen discourses without listening to what it is that they are saying. It is likely for example that the use of the Internet by the digital subaltern would be different to that of other users. Additionally there are, at the edges of the Invisible Empire, places where some translation does occur, where those who have limited access through a combination of cultware and literacy are able to engage with some of the discourses of digital sovereignty. There is danger that the intellectual while trying to act to translate will inadvertently stand in the way and serve to perpetuate the existing order. Wetware and cultware that is borrowed is of far less worth than that which is developed for each individual.

This intervention can also be seen in the context of a reflection of the neo-imperialist need for more online consumers, rather than digital citizens. Less than one percent of all Internet traffic in Australia is directed at political sites, and within that small sample three quarters is directed at international sites.⁵³ I cited Celia Lury and her thesis that in a consumer culture, the ability of an individual to consume, as well as how the goods and services that they consume are provided, defines their social position.⁵⁴ Identity and consumerism are (increasingly) intertwined. The digital citizen on screen enacts their role as the good citizen not by merely following analogue political party Web sites, but through each individual engaging with the discourse of citizenship and sovereignty while online. However there is an undeniable commercial and economic aspect to this activity. While trying to speak

⁵³ S. Younge & P. Chen, 'Downloading Democracy', *The Age*. 15th January 2005.
<http://www.theage.com.au/articles/2005/01/12/1105423548673.html> [accessed 15.1.2005].

⁵⁴ C. Lury, *Consumer Culture*. Oxford: Polity Press, 1996, p. 43.

for the digital subaltern it seems, following Spivak's thesis, it is also that one promotes a form of digital neo-colonialism.

While both these positions advise caution in the approach taken to translate, without the intellectual to provide consciousness and translate for the subaltern the existing construction of digital colonisation will be extended and perpetuated. While Spivak critiques the place of the intellectual in speaking for the subaltern, for her, this is still an important position. Without the intellectual attempting to translate the digital subaltern will remain in their disadvantaged position. However this points to a third criticism. The Internet is becoming postcolonial. The Invisible Empire is transformed when it is consumed in the off screen periphery and this creates further problems for attempts to intervene for the digital subaltern.

The assumption that the Invisible Empire is a coherent, uniform, if highly mobile and post modern construction is predicated on its western origins and the dominance of a shared online language, if not community. While this reflects the world of the early Internet it is an assumption that may no longer be valid. Derrida criticised the domination of western philosophy and metaphysics within the colonial discourse off screen.⁵⁵ Stuart Hall follows this line of critique:

I came from a society where the profound integument of capitalist society, economy, and culture had been imposed by conquest and colonisation. This is a theoretical, not vulgar critique. I don't blame Marx because of where he was born; I'm questioning the theory for the model around which it is articulated: its Eurocentrism.⁵⁶

⁵⁵ J. Derrida, *Margins – of Philosophy*. Translated by A. Bass, Chicago: Chicago University Press, 1982.

⁵⁶ S. Hall 'Cultural Studies and its Theoretical Legacies' in L. Grossberg, C. Nelson, P. A. Treichler, L. Baughman & J. Macgregor Wise (eds), *Cultural Studies*. New York: Routledge, 1992.

This thesis must be subject to this criticism following a clearly Western bias in both its history and philosophy. This focus must be understood in the context that the Invisible Empire emerged from the history of these western intellectual constructions, and they thus serve to illustrate the structures as they developed. However it may no longer be appropriate to talk of the Invisible Empire, as it has existed for the past decade since the World Wide Web transformed to scope and reach of the Internet. In 1996, 80% of the online population used English, by September 2004 this had fallen to 35.2%, having lost its majority status in 2000. Similarly 2004 was the first time that the United States accounted for less than half of all ecommerce transactions online.

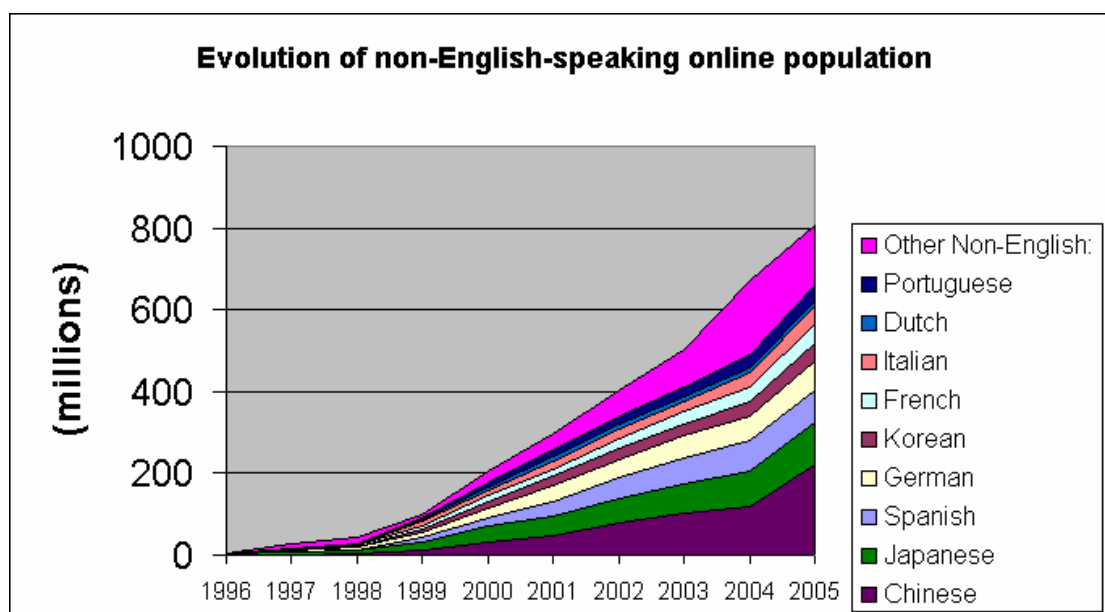


Figure 124
Evolution of non-English-speaking Online Population
<http://global-reach.biz/globstats/evol.html>
 [accessed 22.1.2005]

This is not to say that the United States does not play a significant role with regard to the Internet. The US economy was still responsible for 47% of all electronic

commerce in 2004.⁵⁷ Researchers such as myself who study the use and spread of the Internet primarily through the English language are now studying a minority group of users (although still the largest overall language group).

TOP TEN LANGUAGES IN THE INTERNET	Internet Users, by Language	Average Penetration	World Population Estimate for Language	Language as % of Total Internet Users
English	291,821,168	26.3 %	1,109,729,839	32.8 %
Chinese	113,414,713	8.6 %	1,316,007,412	12.8 %
Japanese	67,677,947	52.8 %	128,137,485	7.6 %
Spanish	56,844,480	14.6 %	389,587,559	6.4 %
German	54,244,805	55.4 %	96,141,368	6.1 %
French	37,502,485	10.0 %	375,066,442	4.2 %
Korean	31,600,000	42.0 %	75,189,128	3.6 %
Italian	28,610,000	48.8 %	58,608,565	3.2 %
Portuguese	21,691,837	9.5 %	227,621,437	2.4 %
Dutch	14,655,328	60.5 %	24,218,157	1.6 %
TOP TEN LANGUAGES	718,062,762	18.9 %	3,800,307,391	80.8 %
Rest of the Languages	170,618,369	6.5 %	2,611,759,794	19.2 %
WORLD TOTAL	888,681,131	13.9 %	6,412,067,185	100.0 %
(*) NOTES: (1) Internet Top Ten Languages Usage Stats were updated on March 24, 2005. (2) Average Penetration is the ratio between the sum of Internet users speaking a language and the total population estimate that speaks that referred language. (3) The most recent Internet usage information comes from data published by Nielsen//NetRatings , International Telecommunications Union , and other reliable sources. (4) The population information is from world-gazetteer.com . (5) For definitions and navigation help, see the Site Surfing Guide . (6) Stats may be cited, giving the source and establishing an active link back to InternetWorldStats.com . ©Copyright 2005, Miniwatts International, Ltd. All rights reserved.				

Figure 125
Internet users by language
<http://www.internetworldstats.com/stats7.htm>
 [accessed 10.7.2005]

The Invisible Empire is becoming postcolonial. English, once thought of as the language of the Internet that would impose itself as the lingua Franca of the digital world is no longer the language used by the majority of Internet users and its share of the language pie on the Internet, given the relatively low penetration rate of Internet

⁵⁷ Global Reach, 'Forrester projects 6.8 Trillion for 2004 (B\$)'.
<http://glreach.com/eng/ed/art/2004.ecommerce.php3> [accessed 1.12.2004].

access in the next two largest online languages on Chinese (13.7% of Internet users) and Spanish (9% of Internet users), can be expected to further retract over time. China is set to pass the United States in total broadband subscriptions by 2007.⁵⁸

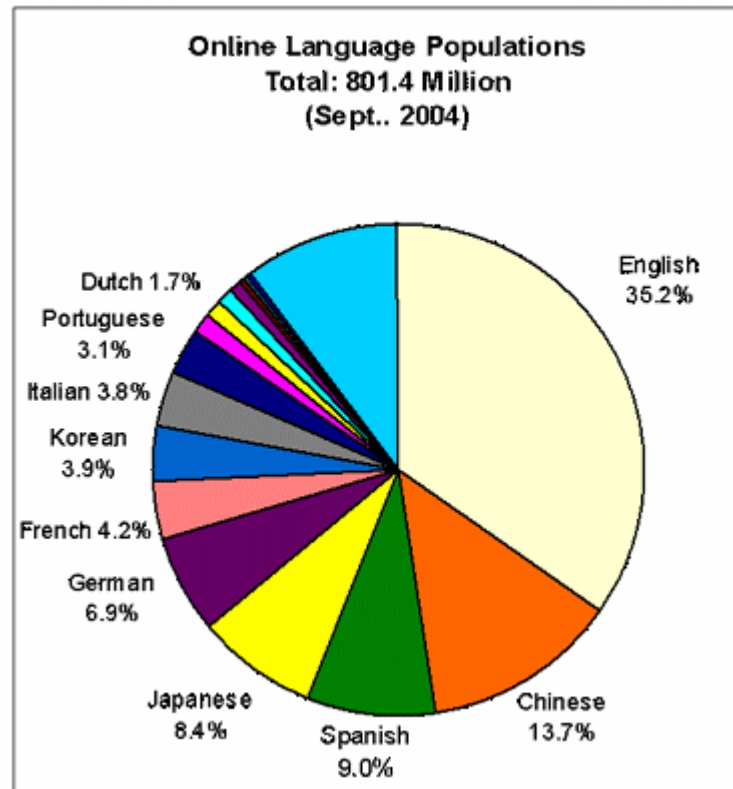


Figure 126
Online language populations
<http://glreach.com/globstats/>
 [accessed 14.1.2005]

Each subject of the Invisible Empire reinterprets the Empire to suit their own local image, ideology, and needs. This atomised process further complicates the plight of the digital subaltern, as the digital core further fragments and literally divides into different areas with limited ability to converse. While Google translates Web pages between languages with a moderate level of success, the literacy required to even

⁵⁸ 'China to Top U.S. in Broadband Subscribers', *Electronic News*, 5th April 2005. <http://www.reed-electronics.com/electronicnews/article/CA529685?nid=2019> [accessed 8.6.2005].

have the potential to directly experience the diversity of Invisible Empire is now beyond the grasp of a single person, no matter how well developed and articulate their projected digital self. This presents a challenge to the English-biased field of Internet Studies. This field is still in its infancy, yet already much of its academic production dates quickly and loses resonance in the digital world.

This picture of the decline of English language on the Internet is complicated by the massive growth in the use of English off screen. The Invisible Empire has played a key role in the adoption of this language across the globe. More than half of the value of electronic commerce that occurred in 2004 was initiated in English speaking North America,⁵⁹ while the number of users is growing the majority of the wealth on screen still resides with the English speaking minority. The language of the Internet is changing, however English still makes up more of the online population than any other language by a significant margin. The code maintains its bias towards Latin script written left to right.

While the number of non-English speakers online is growing dramatically, so too is the number of these people who are learning English as a second language. It is estimated that within the next ten years two billion people will be studying English, and three billion people will speak it. Even now native English speakers are outnumbered by a factor of three to one by non-native speakers.⁶⁰ However following other postcolonial practice, the language of the core is being reinterpreted

⁵⁹ Once Canada is added to the US online economy North America accounts for nearly 51% of global electronic commerce. Global Reach, 'Forrester projects 6.8 Trillion for 2004 (B\$)'. <http://glreach.com/eng/ed/art/2004.ecommerce.php3> accessed 1.12.2004].

⁶⁰ C. Power, 'Not the Queens English: Non-native English-speakers now outnumber native ones 3 to 1. And it's changing the way we communicate,' *Newsweek International*. 2005. <http://msnbc.msn.com/id/7038031/site/newsweek/> [accessed 23.3.2005].

at a local level. English is developing local dialects such as Englog, Japlish, and Hinglish in the Philippines, Japan, and India respectively.⁶¹ These dialects and the use of both first and second languages on screen will need to be understood within their own terms. There is the potential within an English biased understanding of Internet Studies to develop a new form of online Orientalism.

The Edge of the Screen

Sekyi-Otu observed of colonisation that, 'the colonial situation leaves the colonised in a world without a public political sphere, with no mediation possible between the rulers and the ruled'.⁶² In the context of the Invisible Empire, this situation is further exacerbated. Access, or more specifically the screen, is an impermeable barrier crossed only through literacy that prevents a public sphere providing a co-inhabited space for the digital citizen and the digital subaltern. In Sekyi-Otu's criticism of the colonial condition the colonised and coloniser still share a common corporal manifestation. Within the Invisible Empire, the digital underclass has no manifestation. They are not encountered by those on screen, and provide no place for a common discourse of any kind. Foucault's construction of multiple discourses, where the analogue subaltern is excluded by lack of authority, is similarly not provided for by the circumstance of Invisible Empire. The on screen Invisible Empire presents a very different framework, as the subaltern lacks not just the authority to speak but any kind of presence, or place from which to speak. The

⁶¹ C. Power, 'Not the Queen's English: Non-native English-speakers now outnumber native ones 3 to 1. And it's changing the way we communicate,' *Newsweek International*. 2005. <http://msnbc.msn.com/id/7038031/site/newsweek/> [accessed 23.3.2005]

⁶² A. Sekyi-Otu, *Fanon's Dialectic of Experience*. Cambridge: Harvard University Press, 1996. as cited in A. C. Alessandrini, 'Humanism in Question: Fanon and Said', in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.

condition of the digital subaltern is similarly problematic for Bhabha's understanding of a shared 'third space' where dialogue can occur, no shared space exists. Access provides a real 'edge' although it hides behind the invisible façade of Invisible Empire, indeed marking its borders, while ambiguity and resistance can build up on either side of the border, the screen – the point of access – is an impermeable barrier between those outside, and those within the borders of empire. This invisible division makes any form of resistance hard to mobilise. Similarly the discourse of digital sovereignty creates a decentred authority not unlike Derrida's conception of the structure without a centre,⁶³ further hampering the construction of any type of resistance to digital colonisation.

The digital subaltern does have a shared space with the digital citizen off screen. In these circumstances, there are very limited markers of the subaltern or empowered status of any individual, race, gender and age all provide their own off screen markings, but are not so directly tied to on screen empowerment or disadvantage. On screen they have no tangible manifestation, and the gated border at the screen is visited by each person alone in front of the keyboard. This creates a structure where change and resistance on the part of the disempowered and colonised is particularly hard to develop, and where disadvantage is hidden.

While provocative and illustrative of the circumstance of the subaltern, Spivak provides no direct strategy for change and few answers to help the subaltern gain a voice.⁶⁴ Her task was to historicize, contextualize and understand. Within Gramsci's

⁶³ J. Derrida, *Writing and Difference*. Translated by A. Bass, London: Routledge, 1976.

⁶⁴ B. Moore-Gilbert 'Spivak and Bhabha' in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.

framework, the attempt to develop class consciousness within the subaltern is also made particularly difficult given the atomising of the individual at the point of access. However his concept of the organic intellectual rising from a particular class, and more specifically the role and responsibility of those intellectuals to provide a voice for that class in learned discourse, may show the way for the subaltern to be given a voice and provided with consciousness. As Edward Said confirmed,

Part of what we do as intellectuals is not only to define the situation, but also to discern the possibilities for active intervention, whether we then perform them ourselves or acknowledge them in others who have either gone before or are already at work, the intellectual as a lookout.⁶⁵

While this strategy has the potential of having the intellectual stand in the place of the subaltern and provide a less than authentic translation of their voice, this must be balanced against the potential of inaction. Whereas the former colonial possessions of the British Empire were able to mobilise the Nation State as the central site of resistance to colonisation, the Invisible Empire is different to this earlier construction and requires different strategies. Rather than trying to remove the core from the periphery, resistance to digital colonisation is focussed on gaining better access to the core, developing the literacy and cultware to transverse the barrier of the screen. In this context the potential for the Nation State to be the site of resistance is once again central. However rather than looking to expel a colonial invader the Nation State must look inside its borders to find and empower those who are excluded from this new construction of Invisible Empire.

If any agency is going to provide the means of intervention between these two groups, invisible to each other, then the digital off screen and the subaltern on screen

⁶⁵ E. Said, *Humanism and Democratic Criticism*. New York: Columbia University Press 2003, p. 140.

respectively, living within the same off screen populations side by side, it has to be the Nation State. However the Nation State will not necessarily be aware of the divide because of its invisible nature. In order for the Nation State to intervene the intellectual, a necessary hybrid of Gramsci's division between the organic and traditional intellectual must act as an advocate of this intervention. These intellectuals must work to create a space where both the digital citizen and the digital subaltern are aware of each other's presence as a precursor for translation to occur. They must activate resistance to digital colonisation through mobilising the apparatus of the Nation State to intervene on behalf of the digital subaltern and provide them with access through the gates of the screen to the Invisible Empire. There are currently many government-sponsored programs in place attempting to bridge the digital divide. The changing nature of exclusion as the rate of Internet penetration in Australia matures, and the challenges presented by the digital subaltern will require a change in focus for many of these activities.

The fragmentation of the core and the periphery is seen in the move from the earlier land-based empires, through to the naval domination of the British Empire, and then through to the neo imperialism on the post cold war hegemony of the United States, and this evolution continues within the Invisible Empire. As stated in *The Second Coming*, the centre as a coherent entity does not hold and fragments. But does this state of affairs represent the *Spiritus Mundi*, the spirit of the world, the sinister manticore on his way to Bethlehem,⁶⁶ the greatest trick of the devil in disappearing as an understood and visible manifestation while still active in the world, or does this fragmentation truly represent the 'last gasp' of empire.

⁶⁶ A subject of Roman, and then later British colonialism and now an outpost of the Invisible Empire, the Bethlehem Internet Café, can be found at beit jala in the old town.



Figure 127

The Manticore

<http://monsters.monstrous.com/manticore.htm>

[accessed 22.1.2005]

A consequence of the structure of Invisible Empire may be the appearance that digital colonisation results in a world where, ‘the best lack all conviction, while the worst are full of passionate intensity’.⁶⁷ This is the imperative for the intellectual to intervene, to speak for the digital subaltern, will ensure that the increasingly numerous gates to the Invisible Empire can be accessed.

Software and hardware have previously been the drivers of Internet growth, reducing the level of literacy, and growing the number of users. The size and complexity of the resulting network creates an environment that then requires new wetware or literacy to navigate in a way that makes full utilisation of the network utility. The growth in the power of hardware and the relative simplicity of the interface established through software meant that the walls of empire were porous. Gaining access to the gateways of access was relatively obtainable. However this growth, the increase in network utility, is now impeded for those who remain outside the gates

⁶⁷ W. B. Yeats, ‘The Second Coming’. http://www.poetry-online.org/yeats_the_second_coming.htm

by issues of literacy and context, of wetware and cultware. This is a new situation and potential solutions are inhibited by the invisible nature of the empire. Those on either side of the walls cannot perceive the barriers and borders, let alone those who reside on the other side. In this situation, the intellectual must act as a translator, to shed light on what has been invisible for both sides, and to translate for the digital subaltern.

Conclusion: The Intellectual

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to heaven, we were all going direct the other way – in short, the period was so far like the present period, that some of its noisiest authorities insisted on its being received, for good or for evil, in the superlative degree of comparison only.

Charles Dickens, *A Tale of Two Cities* (1859)¹

Dickens wrote these words almost one hundred and fifty years ago. His descriptions are echoed in Paul Virilio's caution from 1997 that society will 'splinter into two opposing camps.'² The Internet provides great opportunities, but it is no longer the fodder of dreams and unbridled optimism that the now primitive technology, applications and platforms, The Well and LambdaMOO, invoked for the early users. The Invisible Empire is diffused and integrated into contemporary Australian society, having rapidly become a daily tool for the majority of the population. Crucially for this research, the once rapid growth of the medium has tapered. The walls of empire are closing to those on the outside. In this environment Virilio's two opposing camps are crystallizing and activating. This thesis has demonstrated that the structure of the Internet renders digital subalterns invisible to the core, just as the Internet is invisible to this group who are without access themselves.

This situation requires intervention. Gramsci's intellectual has a translational role, to provide the subaltern with consciousness and speak on their behalf within the core. In the structure of the Invisible Empire this role of translator is even more important

¹ C. Dickens, *A Tale of Two Cities*. <http://www.litrix.com/twocities/twoci001.htm#1> Letrix Reading Room, 2002.

² P. Virilio, *Open Sky*. London: Verso, 1997.

than in the analogue age. The screen is creating an impenetrable barrier. There is no shared space, no edges at which resistance can be activated. The core of this research has been to expose the current positioning of disadvantage within the Invisible Empire. Social justice demands that further intervention is undertaken.

The Internet provides a wide variety of information, goods and services, both as public goods and private capital. The introduction to this thesis cited Perry Barlow, co-founder of the Electronic Frontier Foundation.

There has been much written both celebrating and denouncing cyberspace, but to me this seems a development of such magnitude that trying to characterize it as a good thing or a bad thing trivializes it considerably.³

While such an evaluation could be made when viewing society as a whole, focusing on the impact of the technology for those with access, the impact on individuals within society left outside of the growing Invisible Empire is both serious and negative. In the late 1990s, scholars began to focus on the impact of the Internet on those who were without access, and concern about the digital divide began to enter debates about communications policy.⁴ As the Internet was further integrated into the economy, popular culture and people's lives, the exclusion of those who are without access was exacerbated. If the Internet is activating the best of times for some, then

³ J. P. Barlow, S. Birkets, K. Kelly & M. Slouka, 'Harper's forum: what are we doing online?', *Harper's*. August 1995, pp. 35-46.

⁴ J. McConnaughey, D. W. Everette, T. Reynolds & W. Lader (eds), *Falling Through the Net: Defining the Digital Divide*. Washington: U.S. Department of Commerce, 1999.

D. B. Hindman, 'The Rural-Urban Digital Divide', *Journalism & Mass Communication Quarterly*. Autumn 2000, volume 77, issue 3.

B. Hecht, 'Bridging the digital divide', *Journal of Housing and Community Development*. March-April 2001, volume 58, issue 2.

A. S. Hammond, 'The Telecommunications Act 1996: Codifying the Digital Divide', *Federal Communications Law Journal*. December 1997, volume 50, number 1, pp. 179-214.

J. Brown, 'The Digital Divide', *Civil Rights Journal*. Fall 1999, volume 4, issue 1.

P. Norris, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge: Cambridge University Press, 2001.

for those excluded the disadvantage becomes worse over time as the Internet becomes more integrated with people's daily lives. While this was a cause for concern, the rapid growth of Internet penetration through society might have led to the assumption that this was a transitory phase.

My thesis has demonstrated that access to the Internet has reached a critical political, economic and social moment. The borders of the Invisible Empire, having previously been rapidly expanding outward, are now static. Those who have access and those without are becoming locked in place. While the drop off in this once rapid growth is being described in terms of the market maturing,⁵ this needs to be understood in the context of the matrix of access and the specific factors limiting access. Early factors that restricted access and required the development of hardware and software, communications cables and web browsers, are giving way to barriers to access that manifest in wetware and cultware, in literacy and the context in which an individual finds themselves off screen. This moment and mode of inequality will require different strategies to overcome disadvantage than those that have previously been deployed to promote access.

This thesis began with a stroll of the digital flâneur along the boulevards of the Invisible Empire. The intent was to critically observe the digital surrounds and their

5 J. Fan., *U.S. Internet Usage Shows Mature Growth, Forcing Innovation of New Web Offerings*, According to Nielson//Netratings. Nielson//Netratings. <http://direct.www.nielsen-netratings.com/news.jsp> [accessed 24.3.2005].

A. Lenhart, J. Horrigan, L. Rainie, K. Allen, A. Boyce, M. Madden & E. O'Grady, *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.
http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

consequences, both on and off screen. Part I – the first three chapters of this thesis – provided a background for how the Internet manifests within Australia. Chapter One, ‘A History of Exclusion: Telecommunications and the Universal Service Obligation in Australia’, gave a history of access to telecommunications in Australia, and how this has changed over time as the understanding of what constitutes the concepts of ‘Universal’, ‘Service’ and ‘Obligation’ have developed. This chapter also explored the conditions of those who are left outside of access to telecommunications enjoyed by their fellow citizens. The first chapter is significant in that it provides the background for the analysis that followed.

Having set this background of telecommunications access in Chapter One, Chapter Two turned the focus specifically to the construction of Internet access. The screen acts as a gateway that both provides a point of passage through the walls of the Invisible Empire and excludes those who do not meet the requirements to transverse the portal. Hardware, software and wetware must all meet at the screen to enable access at any point in time and space. This atomised point of access then exists and is enabled by the context in which it manifests, the fourth ‘ware of access, cultware. There are no obvious markings of those without access to set them apart from those with access. The nature of this construction – with each user alone at the screen – provides for no shared space in which the digital citizen on the screen and the digital subaltern restricted to the analogue world can interact. The digital subaltern does not have a manifestation through the screen. There is nothing in the analogue world to indicate who has passage of the gateways of Invisible Empire and who does not. Chapter Two introduced these conditions invoked at the gateway which were interrogated in more depth in the following chapters.

Chapter Three, 'Networks and Digitisation', focused on the transformations and reinterpretations that occur in the digitised environment. This chapter continued the analysis of the construction of access. Specifically it tracked how the different 'wares' have developed within the digital environment and the consequences this has generated for the development of the Internet. These factors, particularly the limits to network utility that wetware and cultware are coming to represent, are acting as forces to limit Internet growth. Analysis then moved to the digital political economy: how the digitised environment transforms capitalism in a context where information becomes simultaneously a currency and an interface, the conflict between the propriety ownership of ideas through copyright and patents, and the value of the free flow of ideas through society that is produced under these conditions. Attention turned to the manifestation of the self in the digital environment, in particular, the construction of the digital self which consists of a multitude of discrete digital identities spread across different applications and relationships. Chapter Three provided the background for a critical examination of the Invisible Empire and an analysis of the on screen environment.

Part I revealed the telecommunications environment in Australia, the construction of Internet access, and the transformations active in the digital environment within chapters one to three. Part II of *The Invisible Empire* entered the on screen digitised environment. The construction and foundations of political power, citizenship and sovereignty is transformed in this space. Chapter Four, 'The Digital Citizen' built on this understanding of the digital self, refining the analysis to investigate the political construction of the self on screen, and the formulation of the digital citizen. Since the

rape in cyberspace of 1993, profound and complex issues have emerged relating to law, punishment and identity on the screen. This chapter tracked the development of citizenship in the analogue world, its relationship to communication, and how this is then transformed on the screen. This transformation required an understanding of both the relationship between the individual and their projected digital identities as well as the ability to enforce social norms and the law in such an environment. Citizenship within the context of the Invisible Empire is both a noun and a verb. Rather than an analogue citizenship laid down by the authority of a sovereign Nation State, in the Invisible Empire this understanding is fickle and subject to reinterpretation and change at each point of access. Such a realization triggers questions of the non-citizen, those who fall outside the parameters of digital citizenship, or the digital deviant. Off screen, the criminal and the underclass conflate. Those who do not fulfil the requirements of citizenship are often seen as also those most likely to not live up to the responsibilities of citizenship. Within the Invisible Empire, this is transformed. The criminal, the digital deviants, are more often hyper literate, more than meeting the requirements of digital citizenship, yet failing to meet the responsibilities, wilfully transgressing the laws of the digital society.

Having investigated the self and the relationship of the digital citizen to the laws and customs of the digitised environment, Chapter Five examined how this environment has been constructed. The chapter followed the history of sovereignty and its overlap with controls to the distribution and interpretation of knowledge – in particular the Bible and the ‘Word of God’, leading through the reformation to the establishment of the modern Nation State in the Treaty of Westphalia. This Treaty bound sovereignty

and the monopoly of violence that it represents in space. This relationship is then transformed on the screen as the Internet moves across and within the borders of the Nation State. Sovereignty, as with citizenship, becomes unstable and mobile. While each digital citizen interprets the discourse of citizenship at each instance of access, rival digital sovereigns attempt to influence the contested discourse of sovereignty. This chapter explored the origins and motivation of some of these rival sovereigns and how they attempt to influence the discourse.

As Part I set the background environment for the Invisible Empire, Part II outlined how the Invisible Empire manifests on the screen. Part III, using the conditions illustrated in these earlier sections, focused on how the Invisible Empire projects beyond the screen and across national borders. Chapter Six detailed the construction of the Invisible Empire across these borders. This chapter tracked the change in the nature of past empires and their core-peripheral relations from Rome through to the present. It explored how this digital periphery both conflates with its analogue counterpart and creates new types of disadvantage within the borders of Nation States.

The study of empire is a study from the core, by contrast, living and writing on the periphery requires a concentration on colonisation and its consequences. The Nation State, initially a tool of European colonialism, was reinterpreted at the periphery as a site of resistance to colonial domination. The Nation State has the potential to act as a vehicle for resistance to the Invisible Empire. Chapter Seven examined how this resistance is necessarily transformed when applied to the digitised environment. When resistance is activated to the Invisible Empire, the vehicle of the Nation State

can be used to provide access to the core for those who would otherwise be left outside the gates of empire. The invisible nature of the empire means that this is not an obvious path. Rather, there is a role for the intellectual to reveal this mode of resistance and illuminate the otherwise hidden influence and consequences. To enact this process, the chapter tracked the development of Postcolonial Studies as a discipline. This thesis took the theories articulated by Edward Said, Homi Bhabha and Gayatri Spivak, to inform an understanding of resistance to the new digital colonisation. This chapter explicitly acknowledged that link and the development of academic critiques of the colonial process.

Chapter Eight focused on the consequences of the Invisible Empire for the colonised and dispossessed. This chapter explored the condition of the analogue subaltern. Following Antonio Gramsci, it also illustrated the role of the intellectual in providing the subaltern with consciousness of their condition and acting as an advocate for change. Moving from analogue theories, the chapter then probed the condition of the digital subaltern. The invisibility of the subaltern both in the analogue and on screen environment makes both intervention and translation problematic. Creating consciousness in these circumstances is especially difficult, with no shared space for the digital citizen and the digital subaltern to cohabit, there is no place where translation between the two can potentially occur. In the digitised environment the role of the intellectual is of even greater importance for developing consciousness of the conditions of the subaltern both within the underclass and at the core. The intellectual must act to create consciousness for the subaltern and must also to act as a translator, enabling the Nation State to act as a site of resistance. This chapter represented the conclusion of all arguments, bringing the focus on the consequences

of the Invisible Empire for the disadvantaged at the periphery and the role of the intellectual as an instigator of intervention. Spivak warns against the arrogance of assuming that an outsider can presume to speak for the subaltern. Rather than translating, the commentator may instead be standing in the place of the subaltern, preventing them from speaking for themselves. Such a concern is made more troubling in the digital environment, which is fragmenting and becoming postcolonial as it diversifies and reinterprets the original colonial discourses of its American and English speaking origins. In this increasingly disjointed environment, the danger of the subaltern being rendered further invisible both at the core and periphery is elevated. So what can be done to speak for the digital subaltern? What sort of intervention is possible, and is there a way to create the structures of dialogue between the core and the periphery? While the Nation State can potentially act as a site of intervention, the invisible nature of both core and periphery makes activating this resistance problematic.

A decade ago the electronic frontier represented an uncharted frontier without a population or history, for noble settlers to lay down civilisation in the digital new world. Ten years later, this thesis has illustrated that the frontier is now the disenfranchised periphery of empire. As the Internet fragments further into different cultural splinters the disadvantage of the digital subaltern – those outside of the empire – is further entrenched as they become further marginalised and unseen. My original contribution to knowledge is to display the causes and consequences for not addressing – overtly and clearly – those who are excluded from the digital environment. The development of cultware, as an addition to the matrix of access (hardware, software and wetware), provided a context for the otherwise atomised

point of access. The mobilisation of post colonial theory within Internet Studies facilitates analysis of that context and illustrated its implications. This thesis focused on the Australian environment in the broader context of global Internet Studies, moving beyond the research data and projects from the United States and Europe. The end of rapid growth in the spread of Internet penetration will further emphasize this need for incisive interpretation, which this dissertation fulfils.

The borders of Empire are closing to, and on, those left outside. Growth in access to the Internet is stagnating in ‘developed’ jurisdictions such as the United States and Australia. Many of those who are now without access are unlikely to change this situation without intervention. This stasis requires the frontiers – once thought of as empty and fertile land reserved for the adventurous homesteaders – to be secured. However border protection in this context is radically transformed. Rather than excluding the ‘other’, those outside these borders, ‘protection’ in the digital context involves tracing those borders through the Nation State, to find those who are excluded and securing their access.

Marx observed that ‘the philosophers have only interpreted the world in various ways; the point however is to change it.’⁶ This thesis began with the wanderings of the digital flâneur and observations about the construction of the Invisible Empire. However these observations revealed a significant digital underclass, one whose positioning is set to be perpetuated, and whose disadvantage is set to be compounded as the Internet becomes further integrated into daily life and Australian popular

⁶ K. Marx, ‘Theses on Feuerbach’, *Marx/Engels Selected Works*. Moscow: Progress Publishers 1969. <http://www.marxists.org/archive/marx/works/1845/theses/theses.htm> [accessed 13.7.2005].

culture. The role of the flâneur is important. The construction of core and periphery in the digital environment render each invisible to the other, with little or no cohabited space where interchange and translation can occur between these two groups. To intervene in this situation, to act to 'change it', requires the intellectual to perform the role of translator, to speak to, and on behalf, of the subaltern, to stand for them without taking their place. This is a relatively new problem, but one that will compound over time. This thesis is timely in that intervention is required now. This research is the first step towards forging an intervention.

Appendix A: Bibliography

On Screen:

Books

Alighieri D., *The Divine Comedy of Dante Alighieri*. London: Oxford University Press, 1921. http://www.everypoet.com/archive/poetry/dante/dante_contents.htm [accessed 21.6.04].

Bentham, J. *The Panopticon Writings*. Edited by Bozovic M., London: Verso, 1995, pp. 29-95. <http://cartome.org/panopticon2.htm> [accessed 16.7.2005].

Brooke A., *The Traicall Historye of Romeus and Juliet*.
<http://www.clicknotes.com/romeo/brooke/Bttr.html> [accessed 5.5.2005].

Bourke M. J., *Universal Service? Telecommunications Policy in Australia and People with Disabilities*, Belconnen: Tomw Communications 2000.
<http://www.tomw.net.au/uso/> [accessed 1.12.2003].

Colecchia A., OECD Working Party on Indicators for the Information Society, *Defining and Measuring Electronic Commerce: A Status Report*. Paris: OECD 1999.
<http://www.oecd.org/dataoecd/12/55/2092477.pdf> [accessed 15.6.2005].

Davis W. S. (ed), *Readings in Ancient History: Illustrative Extracts from the Sources, 2 Volumes*. Boston: Allyn and Bacon, 1912-13, Vol. II: *Rome and the West*, pp. 166-172. <http://www.fordham.edu/halsall/ancient/14resgestae.html> [accessed 21.6.2005].

Farmwide Pty Ltd, *Unmet Demand for Online Services in Rural Australia*. Rural Industries and Research Corporation, 2000.
<http://www.rirde.gov.au/reports/HCC/00-177.pdf> [accessed 2.12.2003].

Hobbes T., *Leviathan, Or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*.
<http://oregonstate.edu/instruct/phl302/texts/hobbes/leviathan-contents.html> [accessed 16.3.2004].

Hugo V., *The Hunchback of Notre Dame*. Paris, 1831.
http://www.online-literature.com/view.php/hunchback_notre_dame/23?term=printed%20book [accessed 14.3.2005].

Hume D., *Treatise of Human Nature*. London: Oxford University Press, 1888.
<http://www.class.uidaho.edu/mickelsen/ToC/hume%20treatise%20ToC.htm> [accessed 21.6.2004].

Kedzie C. R., *Communication and Democracy: Coincident Revolutions and the Emergent Dictator's Dilemma*. RAND 1997.
<http://www.rand.org/publications/RGSD/RGSD127/index.html> [accessed 15.6.2005].

Kipling R., *The Ballad of East and West*.
http://www.everypoet.com/archive/poetry/Rudyard_Kipling/kipling_the_ballad_of_east_and_west.htm [accessed 16.6.2005].

Marx K., *Capital: A Critical Analysis of Capitalist Production Volume I, 4th Edition*. Translated by Moore S. & Aveling E., USA: International Publishers Co, 1947. <http://www.marxists.org/archive/marx/works/1867-c1/> [accessed 16.6.2005].

Marx K., 'Outline of a Report on the Irish Question to the Communist Educational Association of German Workers in London, December 1867', *Marx and Engels on Ireland*. Progress Publishers, Moscow, 1971, pp. 126-139.
<http://www.marxists.org/archive/marx/works/1867/12/16.htm> [accessed 12.7.2005].

Marx K., *Capital: A Critique of Political Economy, Volume II*. Edited by Engels F., translated by Lasker I., Moscow: Progress Publishers, 1978.
<http://www.marxists.org/archive/marx/works/1885-c2/> [accessed 16.6.2005].

Marx K. & Engels F., *The Communist Manifesto*. Harmondsworth England: Penguin Books, 1967. <http://www.anu.edu.au/polsci/marx/classics/manifesto.html> [accessed 26.5.2005].

Milton J., *Paradise Lost*. <http://www.literature.org/authors/milton-john/paradise-lost/chapter-01.html> [accessed 16.3.2004].

Poster M. (ed), *Jean Baudrillard, Selected Writings*. (Stanford; Stanford University Press, 1988), pp.166-184. accessed at
http://www.stanford.edu/dept/HPS/Baudrillard/Baudrillard_Simulacra.html [accessed 4.9.2003].

Proudhon, P.-J., *What is Property?* Edited and translated by Kelley D. R. & Smith B. G. <http://etext.lib.virginia.edu/etcbin/toccer-new2?id=ProProp.sgm&images=images/modeng&data=/texts/english/modeng/parse.d&tag=public&part=1&division=div2> [accessed 1.7.2005].

Schugurensky D., *History of Education: Selected Moments of the 20th Century*. Department of Adult Education, Community Development and Counselling Psychology, The Ontario Institute for Studies in Education of the University of Toronto (OISE/UT).
http://fcis.oise.utoronto.ca/~daniel_schugurensky/assignment1/1986bourdieu.html [accessed 15.9.2004].

Silver D., 'Introducing Cyberculture: Looking Backwards, Looking Forwards: Cyberculture Studies 1990-2000', in Gauntlett D., *Web.Studies*. New York: Oxford University Press, 2000. <http://www.com.washington.edu/rccs/intro.asp> [accessed 10.7.2005].

Smith A., *An Inquiry into the Nature and Causes of the Wealth of Nations*, <http://www.econlib.org/library/Smith/smWN.html> [accessed 17.3.2005].

Weinberger D., *Small Pieces Loosely Joined: A Unified Theory of the Web*. Cambridge USA: Perseus Publishing.
<http://www.smallpieces.com/content/chapter1.html> [accessed 13.7.2004].

WIPO *The Recognition of Rights and the Use of Names in the Internet Domain Name System: Report of the Second WIPO Internet Domain Name Process*, 3rd September 2001. <http://wipo2.wipo.int/process2/report/html/report.html> [accessed 29.7.2004].

Journals and Academic Papers

Abood C., 'Tackling Child Pornography on the Internet', *Online Opinion*. 23rd March 2005. <http://www.onlineopinion.com.au/view.asp?article=3275> [accessed 15.6.2005].

Bourdieu P., 'The Forms of Capital', translated by Nice R., http://www.viet-studies.org/Bourdieu_capital.htm [accessed 15.9.2004]. Originally published as "Ökonomisches Kapital, kulturelles Kapital, soziales Kapital." in *Soziale Ungleichheiten (Soziale Welt, Sonderheft 2)*, edited by Reinhard Kreckel. Goettingen: Otto Schartz & Co., 1983. pp. 183-98.

Castronova E., 'Virtual Worlds: A First-Hand Account of Market and Society on the Cyberian Frontier', *CESifo Working Paper No. 618*. December 2001.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=294828 [accessed 27.7.2004].

Castronova E., 'On Virtual Economies', *Games Studies*. December, 2003, volume 3, issue 2. <http://www.gamestudies.org/0302/castronova/> [accessed 7.11.2004].

Gore A., 'Global Information Infrastructure', Buenos Aires: International Telecommunications Union, 21st March 1994.
<http://www.digitalearth.cn/readingroom/basicreader/others/telunion.htm> [accessed 2.8.2005].

Hughes V., 'Progressivism vs the new Indigenous politics being born in Cape York', *Online Opinion*. 24th July 2003.
<http://www.onlineopinion.com.au/view.asp?article=569> [accessed 10.2.2005].

Humphreys S., "'You just got better at alterations [135]" The shifting relations of players and developers in multi user online games', conference paper: Internet Research 4.0, Toronto, 2003.
<http://www.aoir.org/members/papers42/Sal%20Humphreys%20AoIRS%202003.htm> [accessed 6.11.2004].

Juul J., *Half Real: Video Games Between Real Rules and Fictional Worlds*. Doctoral Dissertation: IT University of Copenhagen. Defended November 12, 2003.
http://www.jesperjuul.net/text/half-real_abstract.html [accessed 7.11.2004].

Katter B., 'There's no way a privatised Telstra will maintain services to remote areas', *Online Opinion*. 21st July 2003.

<http://www.onlineopinion.com.au/view.asp?article=560> [accessed 16.5.2005].

Mandela N., 'Telecom 95 Opening Ceremony', Geneva: International Telecommunications Union, 3rd October 1995.

<http://www.itu.int/TELECOM/wt95/pressdocs/manddist.html> [accessed 2.8.2005]

Moore G., *Electronics*. 19th April 1965, volume 38, number 8.

www.cs.ucsb.edu/~arch/cs254/papers/moorepaper.pdf [accessed 23.4.2005].

Ross K. L., 'The Sun Never Set on the British Empire "Dominion over Palm and Pine"', *Proceedings of the Friesian School, Fourth Series*.

<http://www.friesian.com/british.htm> [accessed 9.4.2004].

Rushkoff D., 'Americaphobia and the Engineered Fear of Progress', paper presented at the Conference on the Internet and Society, Harvard University 28th-31st May 1996. <http://www.aec.at/meme/symp/panel/msg00091.html> [accessed 9.4.2004].

Shannon C. E., 'A mathematical theory of communication', *Bell System Technical Journal*. <http://cm.bell-labs.com/cm/ms/what/shannonday/shannon1948.pdf> [accessed 28.4.2005].

Tuomi I., 'The Lives and Death of Moore's Law', *First Monday*. November 2002 volume 7, number 11. http://firstmonday.org/issues/issue7_11/tuomi/index.html [accessed 28.4.2005].

Urry J., 'The complexities of the global', published by the Department of Sociology, Lancaster University, Lancaster UK,

<http://www.comp.lancs.ac.uk/sociology/papers/urry-complexities-global.pdf> [accessed 2.7.2004].

Government Publications

Aisbett K., *The Internet at Home: A Report on Internet Use in the Home*. Sydney: Australian Broadcast Authority, 2001.

<http://www.aba.gov.au/internet/research/home/> [accessed 25.4.2005].

Australian Communications Authority, *Investigation into the Provision and Maintenance of Telephone Services to the Boulding Family*. March 2002.

https://www.aca.gov.au/telcomm/universal_service_regime/bouldingfamily_investigation.htm [accessed 16.6.2005].

Australian Communications Authority, 'Most Payphones Fully Functional, But Repair Times need to Improve', *Media Release No. 40*. 1st November 2002.

http://internet.aca.gov.au/ACAINTER.65650:STANDARD:1769794414:pc=PC_936 [accessed 20.6.2005].

Australian Communications Authority, *Using Telstra Payphones: Fact Sheet*. Melbourne: Australian Government.
http://internet.aca.gov.au/acainterwr/consumer_info/fact_sheets/consumer_fact_sheet_s/fsc58.pdf [accessed 20.6.2005].

Senator Campbell, Press release, 'One Third of Australia Online by Xmas 2000'. 24th Dec 1999. http://www.dcita.gov.au/nsapi-graphics/?Mival=dca_dispdoc&ID=4742 [accessed 21.6.2004].

Senator Coonan, Minister of Communications, Information Technology and the Arts Web Page, 'Continued Commitment to Communications, Information Technology, Arts and Sport'
http://www.minister.dcita.gov.au/media/media_releases/continued_commitment_to_communications_information_technology_arts_and_sport [accessed 5.6.2005].

Department of Communications, Information Technology and the Arts, *Higher Bandwidth Incentive Scheme*. Department of Communications, Information Technology and the Arts Web Site: Canberra: Commonwealth of Australia.
http://www.dcita.gov.au/tel/higher_bandwidth_incentive_scheme_hibis#2 [accessed 5.6.2005].

Department of Communications, Information Technology and the Arts, *Networking the Nation*. Department of Communications, Information Technology and the Arts Web Site: Canberra: Commonwealth of Australia.
http://www.dcita.gov.au/tel/role_of_the_telecommunications_division_and_contacts/networking_the_nation [accessed 15.5.2005].

Department of Communications, Information Technology and the Arts, *Telecommunications Action Plan for Remote Indigenous Communities*. Department of Communications, Information Technology and the Arts Web Site: Canberra: Commonwealth of Australia, May 2002.
http://www.dcita.gov.au/download/0,2118,4_117045,00.doc [accessed 2.12.2003].

Estens D., *Connecting Regional Australia. The Report of the Estens Regional Telecommunications Inquiry*. Canberra: Commonwealth of Australia, 2002.
<http://www.telinquiry.gov.au/rti-report.html> [accessed 21.7.2005].

National Office of the Information Economy, *Survey of Australian Programs to Increase Individual and Community Access to the Internet*. Canberra: The Commonwealth of Australia, October 2000.
<http://www.noie.gov.au/projects/access/Archive/cps/> [accessed 6.12.2003].

National Office of the Information Economy, *The Current State of Play: Australia's Scorecard*. Canberra: The Commonwealth of Australia, April 2002.
http://www.noie.gov.au/projects/framework/Progress/ie_stats/CSOP_April2002/CSOP_April2002.pdf [accessed 3.12.2003].

National Office of the Information Economy, *The Current State of Play May 2001*. Canberra: The Commonwealth of Australia, May 2001.

<http://www.noie.gov.au/projects/framework/progress/ie%5Fstats/csop%5Fjune2001/readiness/readiness1.htm> [accessed 31.3.2003].

Ofcom, *Ofcom Review of Universal Service Requirements*. London: Office of communications , 10th January 2005.
http://www.ofcom.org.uk/media/news/2005/01/nr_20050110#content [accessed 2.8.2005].

Page Research Centre Limited, '*Future-Proofing Telecommunications in non-Metropolitan Australia*'. Wagga Wagga: Page Research Centre Limited, March 2005.
http://www.page.org.au/downloads/PRC_Telecomms_Paper.pdf [accessed 9.7.2005].

Robertson J., *Regional Telecommunications: An Overview. Research Note Number 52 2004-05*. Canberra: Parliament of Australia, Parliamentary Library. 14th June 2005.
<http://www.aph.gov.au/library/pubs/RN/2004-05/05rn52.htm> [accessed 1.8.2005].

Steering Committee for the review of Government Service Provision, *Overcoming Indigenous Disadvantage: Key Indicators 2005*. Melbourne: Commonwealth of Australia, July 2005.
<http://www.pc.gov.au/gsp/reports/indigenous/keyindicators2005/keyindicators2005.pdf> [accessed 2.8.2005].

Telstra's Universal Service Obligation Standard Marketing Plan.
http://www.aca.gov.au/telcomm/universal_service_regime/mp.rtf [accessed 19.11.2003].

'Indigenous Self Employment Program.' *Workplace.gov.au*.
<http://www.workplace.gov.au/workplace/Individual/IndigenousAustralians/IndigenousSelfEmploymentProgrammeISEP.htm> [accessed 1.7.2005].

Web Sites

Aidworld
<http://www.aidworld.org/>

Aljazeera.net
<http://english.aljazeera.net/HomePage>

Australian Broadcasting Authority
<http://www.aba.gov.au/>

Australian Citizenship Website: The Department of Immigration and Multicultural and Indigenous Affairs.
<http://www.citizenship.gov.au/>

Citizens Rights and Responsibilities
<http://www.citizenship.gov.au/why.htm#rights> [accessed 4.9.2003].

Australian Communications Authority
<http://www.aca.gov.au/>

Australian Copyright Councils Online Information Centre
<http://www.copyright.org.au/>

Australian Telecommunications Users Group
<http://www.atug.com.au/>
L. Tanner, Reforming Telstra. Australian Telecommunications Users Group Limited, May 2002.
<http://www.atug.com.au/article.cfm?newsid=168&newstype=1> [accessed 9.7.2005].

Bible, The Holy
<http://www.biblegateway.com/>
Revelations 21:21.
<http://www.biblegateway.com/passage/?search=Revelation%2021;&version=31>;
[accessed 29.4.2005].
Romans 13:1-3
<http://www.biblegateway.com/passage/?search=Romans%2013&version=31>
[accessed 15.6.2005].

Broadband Net
<http://www.bbnet.com.au/>

Cisco Systems
<http://www.cisco.com/>
Cisco Certified Internetwork Expert
<http://www.cisco.com/en/US/learning/le3/ccie/index.html>

Clay Shirky's Writings about the Internet
<http://www.shirky.com/>
Half the World
http://shirky.com/writings/half_the_world.html [accessed 11.8.2003].

Digital Games Research Association
<http://www.digra.org/>

Doonesbury
<http://www.doonesbury.com/>

Douglas Rushkoff
<http://www.rushkoff.com/>

Electronic Frontiers Australia: Protecting and Promoting On-line Civil Liberties
<http://www.efa.org.au/>

Electronic Frontier Foundation: Defending Freedom in the Digital World
<http://www EFF.org/>
Barlow J., *A Declaration of the Independence of Cyberspace* Davros Switzerland,
1996. <http://www.eff.org/~barlow/Declaration-Final.html> [accessed 26.8.2003].

DCMA (Digital Millennium Copyright Act), Oct. 20, 1998.
http://www.eff.org/IP/DMCA/hr2281_dmca_law_19981020_pl105-304.html
[accessed 21.6.2005].

Negativland 'Negativland Statement in Support of Peer to Peer File Sharing'
http://www.eff.org/IP/P2P/MGM_v_Grokster/20020121_negativland_essay.html
[accessed 21.6.2004].

Federal Communications Commission
<http://www.fcc.gov/>
Communications Act of 1934
<http://www.fcc.gov/Reports/1934new.pdf>

Flaneur.Org
<http://www.flaneur.org/>
<http://www.flaneur.org/flanifesto.html> [accessed 26.5.2005].

Foucault, Info.
<http://foucault.info/>
Foucault M. 'Of Other Spaces' Public Lecture 1967. Translated J. Miskowiec
<http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html> [accessed 28.4.2005].

Google Australia search engine
<http://www.google.com.au/>

Government Accounting Office
<http://www.gao.gov/>
Federal and State Universal Service Programs and Challenges to Funding,
Government Accounting Office Report, 2nd April 2002.
<http://www.gao.gov/new.items/d02187.pdf> [accessed 6.12.2003].

Internet Society
<http://www.isoc.org/>

Julian Dibbell's Web Site
<http://www.juliandibbell.com/>
J. Dibbell, *Play Money, Meet Big Money*. November 18, 2003.
http://www.juliandibbell.com/playmoney/2003_11_01_playmoney_archive.html
[accessed 28.4.2004].

LawMeme at Yale Law School
<http://research.yale.edu/lawmeme/>

Loband
<http://www.loband.org/>

'The Lowdown: Australian Space Development in Focus',
http://www.lowdown.com.au/sat_assat.html [accessed 9.5.2005].

Marxist Interactive Archive

<http://www.marxists.org/>

Marx & Engels On Ireland. Transcribed E. O’Callaghan & A. Blunden

<http://www.marxists.org/archive/marx/works/subject/ireland/> [accessed 4.7.2005].

Microsoft

<http://www.microsoft.com/>

Microsoft Certified System Engineer

<http://www.microsoft.com/learning/mcp/mcse/Default.asp>

MIS Managing Information Systems

<http://www.misweb.com/>

Plakalo T., *Editors Note*.

http://www.misweb.com/mis100viewednote.asp?by=rank&doc_id=40&rgid=2&year=2004 [accessed 22.1.2005].

Special Editions: MIS 100 Australia 2004 / By Rank.

<http://www.misweb.com/mis100viewby.asp?by=rank&rgid=2> [accessed 22.1.2005].

Nielsen//Netratings

<http://direct.www.nielsen-netratings.com/>

Fan J., *U.S. Internet Usage shows Mature Growth, Forcing Innovation of New Web Offerings, According to Nielson//Netratings*. <http://direct.www.nielsen-netratings.com/news.jsp> [accessed 24.3.2005].

Online Opinion

<http://www.onlineopinion.com.au/>

Pew Internet and American Life Project

<http://www.pewinternet.org/>

Horrigan J. B. & Rainie L., *Getting Serious Online*. Pew Internet & American Life Project 3rd March 2002.

http://www.pewinternet.org/pdfs/PIP_Getting_Serious_Online3ng.pdf [accessed 19.7.2005].

Bell P., Reddy P. & Rainie L., *Rural Areas and the Internet*. Washington, D.C.: Pew Internet and American Life Project, 2004.

http://www.pewinternet.org/pdfs/PIP_Rural_Report.pdf [accessed 1.7.2005].

Fox S., *Older Americans and the Internet*. Washington, D.C.: Pew Internet and American Life Project, 2004.

http://www.pewinternet.org/pdfs/PIP_Seniors_Online_2004.pdf [accessed 1.7.2005].

Lenhart A., Horrigan J., Rainie L., Allen K., Boyce A., Madden M. & O’Grady E., *The Ever Shifting Internet Population: A New Look at Internet Access and The Digital Divide*. Washington, D.C.: Pew Internet and American Life Project, 2003.

http://www.pewinternet.org/report_display.asp?r=88http://www.pewinternet.org/report_display.asp?r=88 [accessed 5.7.2005].

Madden M. & Rainie L., *America’s Online Pursuits: The Changing Picture of Who’s Online and What They Do*. Pew Internet & American Life Project 22nd February 2003.

<http://www.pewinternet.org/reports/reports.asp?Report=106&Section=ReportLevel1&Field=Level1ID&ID=463> [accessed 29.4.2004].

Public Knowledge

<http://www.publicknowledge.org/>

Raise the Fist.Com

<http://www.raisethefist.com/>

Resource Center for Cyberculture Studies

<http://www.com.washington.edu/rccs/>

Sensis Company History

http://www.sensis.com.au/Internet/about/company_history/about_companyhistory.jhtml [accessed 21.10.2003].

Shakespeare Theatre, The

<http://www.shakespearedc.org/>

J. K. Andrews 'Romeo and Juliet: Out of Old Cloth'

<http://www.shakespearedc.org/pastprod/romessay.html> [accessed 12.7.2005].

Spamhaus Project, The

<http://www.spamhaus.org/>

Slashdot

<http://slashdot.org/>

Telepocalypse: Smart Strategy for Stupid Networks

<http://www.telepocalypse.net/>

Telstra

<http://telstra.com/>

Telstra Investor Relations – Corporate History

<http://www.telstra.com.au/investor/corphis.htm> [accessed 16.6.2002].

TTY Payphone Locations

<http://www.telstra.com.au/disability/ttypayphones/index.htm> [accessed 14.11.2003].

Telstra's Disability Services Unit, *Telstra's Third Disability Action Plan: 2002 – 2004*. <http://www.telstra.com.au/disability/docs/dap0204.doc> [accessed 2.12.2003].

Terra Nova

http://terranova.blogs.com/terra_nova/

The Official Tibet Government in Exile Web Site

<http://www.tibet.com/>

Tuvalu Online

<http://www.tuvaluislands.com/>

A Brief History of Tuvalu

<http://www.tuvaluislands.com/history.htm> [accessed 14.4.2004].

The .TV Corporation

www.tv

United Nations Education, Scientific and Cultural Organisation

<http://www.unesco.org/>

Verisign

<http://www.verisign.com/>

VeriSign, *The Domain Name Industry Brief*. June 2004 volume 1, issue 2.

http://www.verisign.com/nds/naming/domainbrief/2004/report_200406.pdf [accessed 20.7.2004].

VeriSign, *The Domain Name Industry Brief*. May 2005, volume 2, issue 2.

http://www.verisign.com/nds/naming/domainbrief/2004/report_200406.pdf [accessed 20.7.2004].

World Forum on Communication Rights

<http://www.communicationrights.org/>

World Summit on the Information Society

<http://www.itu.int/wsis/>

ZDNet Australia

<http://www.zdnet.com.au/>

The Press

AAP, 'Fed: Govt announces review into USO', AAP 1st December 2003.

<http://www.highbeam.com/library/doc3.asp?DOCID=1P1:87910244&num=1&ctrlInfo=Round15%3AProd%3ASR%3AResult&ao=&FreePremium=BOTH> [accessed 1.8.2005].

AAP, 'Fed: US trade report says Telstra uncompetitive', AAP 4th April 2002.

<http://www.highbeam.com/library/doc3.asp?DOCID=1P1:51800761&num=1&ctrlInfo=Round15%3AProd%3ASR%3AResult&ao=&FreePremium=BOTH> [accessed 15.7.2005].

AAP, 'Fed: Switkowski promises on boys death are just "platitudes": union', AAP 14th March 2002.

<http://www.highbeam.com/library/doc3.asp?DOCID=1P1:51396562&num=1&ctrlInfo=Round15%3AProd%3ASR%3AResult&ao=&FreePremium=BOTH> [accessed 12.6.2005].

'Vaile stands by Telstra fund costing', *ABC Online*. 29th July 2005.

<http://www.abc.net.au/news/newsitems/200507/s1425759.htm> [accessed 2.8.2005].

AFP, 'New chief of Australia's Telstra backs privatisation, opposed to break up', *Yahoo Australia & NZ News*. Sydney: 12th June 2005.

<http://au.news.yahoo.com/050612/19/uofr.html> [accessed 19.6.2005].

AFP, 'US Internet growth 'flattens' with 63% online', *The Age*. June 23rd 2004.

<http://www.theage.com.au/articles/2004/06/23/1087844973549.html?from=storyrhs> [accessed 24.6.2004].

‘Telstra VoIP trial kicks off’, *The Age*. March 3, 2005.
<http://theage.com.au/news/Breaking/Telstra-VoIP-trial-kicks-off/2005/03/03/1109700589479.html> [accessed 7.6.2005].

Barkham P., ‘Welcome to music’s online future: Apple’s iTunes digital store opens in UK – but with gaps on the shelves’, *The Guardian Online*. 16th June 2004,
<http://www.guardian.co.uk> [accessed 3.10.2004].

Bartholomeusz S., ‘Trujillo’s vision might put all Telstra’s eggs in IP basket’, *The Age*. 14th June, 2005. <http://www.theage.com.au/news/Stephen-Bartholomeusz/Trujillos-vision-might-put-all-Telstras-eggs-in-IP-basket/2005/06/13/1118645745836.html> [accessed 20.6.2005].

‘Downloading “myths” challenged’, *BBC News*. 27th July 2005.
<http://news.bbc.co.uk/1/hi/technology/4718249.stm> [accessed 28.7.2005].

Borland J., ‘The Brains Behind Kazaa’, *News.com*. 23rd April 2002.
http://news.com.com/The+brains+behind+Kazaa/2008-1082_3-890072.html
[accessed 5.8.2005].

Brudage S., ‘EverQuest strips the dark from “Dark Elf”’, *Games.com*. October, 2000.
www.gamers.com.
http://www.gamegirladvance.com/mmog/archives/2002/10/21/stripping_the_dark_from_dark_elf_in_eq.html [accessed 8.11.2004].

Dale D., ‘Advanced Australians’, *The Sydney Morning Herald*. 22nd January 2005.
<http://www.smh.com.au/articles/2005/01/21/1106110923362.html> [accessed 24.1.2005].

Dasey D., ‘A quick self-Google once a day to guard your reputation’, *The Sun-Herald*. 23rd May 2004.
<http://www.smh.com.au/articles/2004/05/22/1085176043551.html> [accessed 24.5.2004].

‘HM The Queen Found Guilty of Reverse Domain Name Hijacking’, *Demys News Service*. 20th December 2002.
http://www.demys.net/news/2002/12/02_dec_20_queen.htm [accessed 19.6.2004].

‘HM The Queen Wins Domain Name Dispute’, *Demys News Service*. 8th October 2002. http://www.demys.net/news/2002/10/02_oct_08_zealand.htm [accessed 19.7.2004].

‘SouthAfrica.com petition launched’, *Demys News Service*. 28th May 2003.
<http://www.bday.co.za/bday/content/direct/1,3523,1339503-6078-0,00.html>
[accessed 19.7.2004].

Descoeudres O., ‘Broadband in Ballarat?’, *Technology and Business Magazine Australia*. 9th August 2004.
<http://www.zdnet.com.au/news/communications/0,2000061791,39155789,00.htm>
[accessed 20.7.2005].

Dibbell J., 'Serfing The Web: Black Snow Interactive and the World's First Virtual Sweat Shop', *Wired Magazine*. January 2003.
<http://www.juliandibbell.com/texts/blacksnow.html> [accessed 22.7.2004].

Dibbell J., 'The Unreal Estate Boom', *Wired Magazine*. January 2003.
<http://www.wired.com/wired/archive/11.01/gaming.html> [accessed 27.4.2004].

'Moore's Law at 40: Happy Birthday', *The Economist*. 23rd March 2005.
http://economist.com/displaystory.cfm?story_id=3798505 [accessed 29.4.2005].

'The Next American Empire', *The Economist*. 18th March 2004.
http://www.economist.com/world/na/displayStory.cfm?story_id=2517421 [accessed 9.4.2004].

'China to Top U.S. in Broadband Subscribers', *Electronic News*. 5th April 2005.
<http://www.reed-electronics.com/electronicnews/article/CA529685?nid=2019>
[accessed 8.6.2005].

Farmer R., 'KidTrade: A Design for an Ebay-resistant Virtual Economy', *Habitat Chronicles*. October 2004. <http://www.fudco.com/habitat/archives/000023.html>
[accessed 8.11.2004].

Foster J. B., 'Imperial America and War', *Monthly Review*. Volume 55, number 1, May 2003. <http://www.monthlyreview.org/0503jbf.htm> [accessed 25.5.2004].

Geist M., 'Face to Face with the Great Firewall of China', *Ottawa Citizen*. 5th May 2005.
<http://www.canada.com/ottawa/ottawacitizen/technology/story.html?id=6aabb570-9f4d-491c-b915-a5cbb1842292> [accessed 20.6.2005].

Geoghean A., 'ACCC to watch Telstra movements closely', *PM*. 23rd June 2005.
<http://www.abc.net.au/pm/content/2005/s1399342.4htm> [accessed 23.6.2005].

Gilder G., 'Metcalf's Law and Legacy', *Forbes ASA*. 13th September 1993.
<http://www.seas.upenn.edu/~gaj1/metgg.html> [accessed 26.6.2005].

Gratten M., 'Nats set Telstra sell-off terms', *The Age*. 1st August 2005.
<http://www.theage.com.au/text/articles/2005/07/31/1122748527059.html> [accessed 2.8.2005].

Griggs K., 'Aussie Gets Into Pickle With Spam', *Wired*. 11th June 2002.
<http://www.wired.com/news/politics/0,1283,53102,00.html> [accessed 5.8.2005].

Hafner K., 'The Epic Saga of the Well', *Wired Magazine*. May 1997.
http://www.wired.com/wired/archive/5.05/ff_well_pr.html [accessed 16.6.2004].

Harrison L., 'US dotcom keeps ownership of SouthAfrica.com', *The Register*. 12th July 2001. http://www.theregister.co.uk/2001/07/12/us_dotcom_keeps_ownership/
[accessed 19.7.2004].

Herbjørnsrud D., 'Original axis of evil: colonial empires', *Aljazeera.net*. 5th April 2005. <http://english.aljazeera.net/NR/exeres/972FFE74-F7DE-44F0-AB5E-92B47BBDAD7.htm> [accessed 6.4.2005].

Herz J. C., 'The Bandwidth Capital of the World', *Wired Magazine*. August 2002. <http://www.wired.com/wired/archive/10.08/korea.html> [accessed 30.10.2004].

'US court declines jurisdiction over Southafrica.com Dispute', *ICANN Watch*. 25th June 2001. <http://www.icannwatch.org/article.pl?sid=01/06/25/092829&mode=thread> [accessed 19.6.2004].

Ignatieff M., 'The Burden', *New York Times Magazine*. 5th January 2003. <http://www.mtholyoke.edu/acad/intrel/bush/burden.htm> [accessed 15.6.2005].

Jakobsson M. & Taylor T. L., 'The Sopranos Meets EverQuest: Social Networking in Massively Multiplayer Online Games', *Ezine*. August 2003, volume 17, issue 18. http://www.fineartforum.org/Backissues/Vol_17/faf_v17_n08/reviews/jakobsson.htm [accessed 7.11.2004].

Klein N., 'The Rise of Disaster Capitalism', *The Nation*. May 2, 2005. <http://www.commondreams.org/views05/0415-30.htm> [accessed 4.5.2005].

Koh D., 'Alleged Fish Poachers Arrive in WA', *Lateline*. 3rd October 2003, <http://www.abc.net.au/lateline/content/2003/s959857.htm> [accessed 1.12.2003].

Krim J., 'German Teen Avoids jail Time for Sasser Worm', *Washington Post*. 9th July 2005. <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/08/AR2005070801802.html> [accessed 16.7.2005].

Krotoksi A., 'Real Profits from play money', *The Guardian*. 15th April 2004. <http://www.guardian.co.uk/online/story/0,3605,1191678,00.html> [accessed 27.4.2004].

Landers K., 'Telstra sale could fund bush telco network: Nat's report', *PM*. 17th March 2005. <http://www.abc.net.au/pm/content/2005/s1326109.htm> [accessed 2.8.2005].

Lee J., 'Wage Slaves', *Computer Gaming World*. 5th July 2005. <http://www.lup.com/do/feature?cId=3141815> [accessed 7.5.2005].

LeMay R., 'The 12-Minute Windows heist', *ZD Net Australia*. 1st July 2005. <http://www.zdnet.com.au/news/security/0,2000061744,39200021,00.htm> [accessed 1.7.2005].

Ly P., 'Girls teach teen cyber gab to FBI Agents', *The Washington Post*. 4th June 2003. <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&contentId=A10052-2003Jun3¬Found=true> [accessed 20.6.2005].

Manjoo F., 'Raking Muck in "The Sims Online"', *Salon.com*. 12th December 2003. http://www.salon.com/tech/feature/2003/12/12/sims_online_newspaper/index_np.html [accessed 16.12.2004].

Marcus J., 'America: An empire to rival Rome?', *Age of Empires*. <http://news.bbc.co.uk/2/hi/americas/3430199.stm> [accessed 2.5.2004].

McCullagh D., 'ICANN "disappointed" in VeriSign', *News.Com*. 27th February 2004 http://news.com.com/2100-1038_3-5166818.html [accessed 2.6.2004].

McCullagh D., 'ICANN "Disappointed" in VeriSign', *News.Com*. 27th February 2004. http://news.com.com/2100-1038_3-5166818.html [accessed 2.6.2004].

McGrath C., 'Meg Lees on Telstra Sale', *PM*. ABC Local Radio, 30th October 2003. <http://www.abc.net.au/pm/content/2003/s978941.htm> [accessed 3.11.2003].

McGrath C., 'NFF refuses to discuss Telstra sale', *AM*. ABC Local Radio, 15th December 2005. <http://www.abc.net.au/am/content/2004/s1265463.htm> [accessed 9.7.2005].

McGuire D., 'Ruling on '.us' Domain Raises Privacy Issues', *The Washington Post*. 4th March 2005. <http://www.washingtonpost.com/wp-dyn/articles/A7251-2005Mar4.html> [accessed 4.8.2005].

Meacham J., 'From Jesus to Christ: How did a Jewish prophet come to be seen as the Christian saviour? The Epic story of the empty tomb, the early battles and the making of a great faith.', *Newsweek*. 28th March 2005. <http://www.msnbc.msn.com/id/7244999/site/newsweek/> [accessed 24.3.2005].

Meredith H., 'Sniffing out the cyber Hannibals', *The Age*. 12th October 2004. <http://www.theage.com.au/articles/2004/10/11/1097406487106.html?from=storylhs> [accessed 7.6.2005].

Metcalf B., 'There Oughta Be a Law', *New York Times*. 15th July 1996. <http://www.nytimes.com/library/cyber/week/0715laws.html> [accessed 17.5.2005].

'US Military Bases and Empire', *Monthly Review*. March 2002, volume 53, number 10. <http://monthlyreview.org/0302editr.htm> [accessed 25.5.2004].

Morgenstern D., 'Feds Won't Let Go of Internet DNS', *eWeek.Com*. 1st July 2005. <http://www.eweek.com/article2/0,1895,1833928,00.asp> [accessed 3.7.2005].

Morrissey K., 'Feds target urban broadband blackspots', *AAP*. <http://www.zdnet.com.au/news/communications/0,2000061791,39191294,00.htm> [accessed 5.6.2005].

Power C., 'Not the Queens English', *Newsweek International*. 7th March 2005 <http://www.msnbc.msn.com/id/7038031/site/newsweek> [accessed 13.3.2005].

- Riley J., 'Coonan cracks Telstra whip', *Australian IT*. 12th July 2005.
<http://australianit.news.com.au/common/print/0,7208,15897796%5E15320%5E%5E15306,00.html> [accessed 2.8.2005].
- Riley J., 'Vaile backs Telstra's \$7bn broadband plans', *The Australian*. 25th June 2005.
http://www.theaustralian.news.com.au/common/story_page/0,5744,15722905%255E2702,00.html [accessed 9.7.2005].
- Romer P., 'Ideas and Things', *The Economist*. 11th September 1993.
<http://www.agsm.unsw.edu.au/~timdev/readings/READ40.PDF> [accessed 24.5.2004].
- Russell M., 'New Industry: Scavengers collect virtual booty in online games and sell it for real cash', *Newsweek International*. 11th October 2004
<http://msnbc.msn.com/id/6161530/site/newsweek> [accessed 8.11.2004].
- 'The Right to Southafrica.com', *Sedo.com*. 13th March.2001.
<http://www.sedo.com/links/showhtml.php3?Id=140&language=us> [accessed 19.7.2004].
- Sheed J. & Morrissey K., 'Telstra sale legislation on agenda after July', *The Age*. 1st February 2005. <http://www.theage.com.au/news/Business/Telstra-sale-legislation-on-agenda-after-July/2005/01/31/1107020326104.html> [accessed 9.7.2005].
- Slagle M., 'Online Games Pay Real Cash for Virtual Objects', *AP Online*. 25th March 2002. <http://www.detnews.com/2002/technology/0203/25/technology-448554.htm> [accessed 22.7.2004].
- 'Norwegian Minister: Propriety Formats No Longer Acceptable in Communication with Government', *Tatle*. 27th June 2005.
http://www.andwest.com/blojsom/blog/tatle/agenda/2005/06/27/Norwegian_Minister_Proprietary_Standards_No_Longer_Acceptable_in_Communication_with_Government.html [accessed 30.6.2005].
- Terdiman D., 'Virtual Cash Breeds Real Greed', *Wired Magazine*. 23rd January 2003.
<http://www.wired.com/news/games/0,2101,61999,00.html> [accessed 2.6.2004].
- Terdiman D., 'When Play Money Becomes Real', *Wired Magazine*. April 7th, 2004.
<http://www.wired.com/news/games/0,2101,62929,00.html> [accessed 28.4.2004].
- Twist J., 'Law that has driven digital life', *BBC News, World Edition*. 18th April 2005. <http://news.bbc.co.uk/2/hi/science/nature/4449711.stm> [accessed 29.4.2005].
- Virilio P., 'Speed and Information: Cyberspace Alarm', *Le Monde Diplomatique*. August 1995. Translated by Riemens P., University of Amsterdam.
<http://www.humanities.uci.edu/mposter/syllabi/readings/alarm.html> [accessed 7.6.2005].

Ward M., 'Virtual Cash Goes Live', *BBC News*. 7th January 2004.
<http://news.bbc.co.uk/2/hi/technology/3368633.stm> [accessed 27.4.2004].

Webb R., 'T3: the \$600M call', *The Age*. 30th January 2005.
<http://www.theage.com.au/news/Business/T3-the-600m-call/2005/01/29/1106850157986.html> [accessed 1.7.2005].

Whitford S., 'SA Negotiates for Southafrica.com', *ITWeb*. 6th May 2003.
<http://www.itweb.co.za/sections/internet/2003/0305061036.asp?O=S&cirestriction=southafrica.com> [accessed 19.7.2004].

Younge S. & Chen P., 'Downloading Democracy', *The Age*. 15th January 2005.
<http://www.theage.com.au/articles/2005/01/12/1105423548673.html> [accessed 15.1.2005].

Motion Pictures

The Lord of The Rings: The Return of the King. Written by Peter Jackson, Frances Walsh, and Philippa Boyens, directed by Peter Jackson, New Line Cinema, 2003.

The Matrix. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 1999.

The Matrix Reloaded. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 2003.

The Matrix Revolutions. Written and directed by Andy Wachowski & Larry Wachowski, Warner Bros, 2003.

Starship Troopers. Written by Ed Neumeier, directed by Paul Verhoeven, Columbia Tristar, 1997.

Tron. Written by Steven Lisberger & Bonnie MacBird, directed by Steven Lisberger, Walt Disney Productions, 1982.

The Usual Suspects. Written by Christopher McQuarrie, Directed by Bryan Singer, Gramercy Pictures, 1995.

William Shakespeare's Romeo and Juliet. Written by Craig Pearce and Baz Luhrmann (based on play by William Shakespeare), Directed by Baz Luhrmann, Twentieth Century Fox, 1996.

Videos

Redhead S., 'Accelerated Culture: Paul Virilio and The History of The Present' Video Recording of Pub Talk forum of the Murdoch University School of Media Communications and Culture, 30th May 2002.

Off Screen:

Books

Abramson M. A. & Morin T. L. (eds), *E-Government 2003*. Lanham, Md.: Rowman & Littlefield, 2003.

Alessandrini A. C., 'Humanism in Question: Fanon and Said' in H. Schwarz & S. Ray (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.

Alexander R. (ed), *Cyber-Killers*. Great Britain: Orion, 1997.

Alighieri D., *The Divine Comedy of Dante Alighieri*. London: Oxford University Press, 1921.

Alston R., 'Time For Some Real Competition: Is Telecom's Universal Service Still Relevant?', in Armstrong M. (ed), *Telecommunications Law: Australian Perspectives*. Melbourne: Media Arm Pty Ltd, 1990.

Anderson B., *Imagined Communities: Reflections on the Origin and Spread of Nationalism, Revised Edition*. London & New York: Verso, 1991.

Anderson D. M. & Cornfield M. (eds), *The Civic Web: Online Politics and Democratic Values*. Lanham, Md.: Rowman & Littlefield, 2003.

Anderson G. & Irvine P., *Critical Literacy: Political Praxis and the Postmodern*. Albany: SUNY Press, 1993.

Applebee A. C. & Andrelyn C., *Academics Online: A Nationwide Quantitative Study of Australian Academic Use of the Internet*. Blackwood, South Australia: Auslib, 1998.

Aronowitz S., *How Class Works*. New Haven: Yale University Press, 2003.

Aronowitz S. & Gautney H. (eds), *Implicating Empire: Globalisation and Resistance in the 21st Century World Order*. New York: Basic Books, 2003.

Aronowitz S., Martinsons B. & Menser M. (eds), *Techno Science and Cyber Culture*. New York: Routledge, 1996.

Bailey C., 'Virtual skin: Articulating race in cyberspace', In Moser, M. A. (ed), *Immersed in Technology: Art and Virtual Environments*. Cambridge, MA: The MIT Press, 1996, pp. 29-49.

Bailie M. & Winseck D. (eds), *Democratizing Communication? Comparative Perspectives on Information and Power*. Cresskill, New Jersey: Hampton Press, 1997.

Baker G. P., *Constantine the Great: And the Christian Revolution*. New York: Barnes and Noble, 1967.

Balibar E., *Politics and the Other Scene*. London & New York: Verso, 2002.

Bard A. & Soderqvist J., *Netocracy: The New Power Elite and Life after Capitalism*. Translated by N. Smith, London: Pearson Education, 2002.

Barfield C. E., Heiduk G. & Welfens P. J. (eds), *Internet, Economic Growth, and Globalisation: Perspectives on the New Economy in Europe, Japan, and the USA*. Berlin and New York: Springer, 2003.

Barr T., *New.media.com.au: The Changing Face of Australia's Media and Communications*. Sydney: Allen & Unwin, 2003.

Barrett N., *The State of The Cybernation: Cultural, Political and Economic Implications of the Internet*. London: Kogan Page, 1996.

Barry A., *Political Machines: Governing a Technological Society*. London and New York: The Athlone Press, 2001.

Bauman Z., *Liquid Modernity*. Oxford: Blackwell Publishers, 2000.

Bauman Z., *Identity*. Cambridge: Polity Press, 2004

Bayoumi M. & Rubin A. (eds), *The Edward Said Reader*. London: Granta Books, 2000.

Beardsworth R., *Derrida & the Political*. London & New York: Routledge, 1996.

Becker D. & Sklar R. (eds), *Postimperialism and World Politics*. Westport: CT Praeger, 1999.

Bender G. & Druckrey T. (eds), *Culture on the Brink: Ideologies of Technology*. Seattle: Bay Press, 1994.

Berners-Lee T., *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web*. San Francisco: HarperSanFrancisco, 1999.

Bhabha H., 'The Other Question: Difference, Discrimination and the Discourse of Colonialism' in Ferguson R., Gever M., Trinh Minh-ha, West C. (eds), *Out There: Marginalisation and Contemporary Cultures*. New York: MIT Press, 1990.

Bhabha H. K., *Nation and Narration*. London & New York: Routledge, 1990.

Bhabha H. K., *The Location of Culture*. London & New York: Routledge, 1994.

Bickerton P., Bickerton M. & Simpson-Holley K., *Cyberstrategy: Business strategy for Extranets, Intranets and the Internet*. Melbourne: Butterworth Heinemann, 1998.

- Bimber B. A., *Information and American Democracy: Technology in the Evolution of Political Power*. New York: Cambridge University Press, 2003.
- Bjørn-Anderson N., Earl M., Holst O. & Mumford E. (eds), *Information Society: For Richer, For Poorer*. Amsterdam: North-Holland Publishing Company, 1982.
- Boylaud O. & Nicoletti G., *Regulation, Market Structure and Performance in Telecommunications. Economic Department Working Paper No. 237*. Paris: OECD 2000.
- Brabazon T., *Tracking the Jack: A Retracing of the Antipodes*. Sydney: UNSW Press, 2000.
- Brabazon T., *Digital Hemlock: Internet Education and the Poisoning of Teaching*. Sydney: UNSW Press, 2002.
- Bragg M., *The Adventure of English: The Biography of a Language*. New York: Arcadia Publishing 2004.
- Brook J. & Boal I. A. (ed), *Resisting the Virtual Life: The Culture and Politics of Information*. San Francisco: City Lights, Monroe, 1995.
- Brown J. S. & Duguid P., *The Social Life of Information*. Boston: Harvard Business School Press, 2000.
- Burchell G., Gordon C. & Miller P., *The Foucault Effect: Studies in Governmentality With Two Lectures by, and An Interview With, Michel Foucault*. Singapore: Harvester Wheatsheaf, 1991.
- Burnett R. & Marshall P. D., *Web Theory: An Introduction*. London and New York: Routledge, 2003.
- Caillois R., *Man, Play, and Games*. United States of America: Thames and Hudson, 1962.
- Cairncross F., *The Death of Distance: How the Communications Revolution Will Change Our Lives*. Boston, Mass.: Harvard Business School Press, 1987.
- Chakrabarty D., 'A Small History of Subaltern Studies', in Schwarz H. & Ray S. (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
- Chartrand R. L., *Critical Issues in the Information Age*. London: The Scarecrow Press, Inc. 1991.
- Chatterjee P., *National Thought and the Colonial World: A Derivative Discourse*. London: Zed Books, 1986.
- Chatterjee P. (ed), *Texts of Power: Emerging Disciplines in Colonial Bengal*. Minneapolis: University of Minneapolis Press, 1995.

Chatterjee P. & Pandey G. (eds), *Subaltern Studies: Writings on South Asian History and Society*. London: Oxford University Press, 1993

Chuck M., *The Digital Estate: Strategies for Competing, Surviving, and Thriving in an Interneted World*. New York & Sydney: McGraw-Hill, 1997.

Colecchia A. & Wyckoff A., *The Economic and Social Impact of Electronic Commerce*. Paris: Organisation for Economic Co-operation and Development, 1999.

Compaine B. M., *The Digital Divide: Facing a Crisis or Creating a Myth?* London: MIT Press, 2001.

Compaine B. M. & Greenstein S. (eds), *Communications Policy in Transition: The Internet and Beyond*. Cambridge Mass.: MIT Press, 2001.

Crampton J. W., *The Political Mapping of Cyberspace*. Edinburgh: Edinburgh University Press, 2003.

Cullen K. & Robinson S., *Telecommunications for Older People and Disabled People in Europe: Preparing for the Information Society*. Oxford: OIS Press, 1997.

Cunningham S. & Turner G., *The Media & Communications in Australia*. Crows Nest: Allen & Unwin, 2002.

Curran J., Morley, D & Walkerdine V. (eds), *Cultural Studies and Communications*. New York: St Martin's Press 1996

Cusumano M. A., *Competing on Internet Time: Lessons from Netscape and its Battle with Microsoft*. New York: Free Press, 1998.

Davis E., *Techgnosis: Myth, Magic and Mysticism in the Age of Information*. New York: Harmony Books, 1998.

Davies S., *Monitor*. Sydney: Pan Macmillian, 1996.

Dempsey L. & Ormes S., *The Internet, Networking and the Public Library*. London: Library Association Publishing, in association with the UK Office for Library and Information Networking, University of Bath, 1997.

Derrida J., *Of Grammatology*. Translated by Spivak G. C., Baltimore: The John Hopkins University Press, 1974.

Derrida J., *Writing and Difference*. Translated by Bass A., London: Routledge, 1978.

Derrida J., *Margins – of Philosophy*. Translated Bass A., Chicago: Chicago University Press, 1982.

Dery M., *Escape Velocity: Cyberculture at the End of the Century*. London: Hodder & Stoughton, 1996.

Diamond J., *Collapse: How Societies Choose to Fail or Survive*. Great Britain: Allen Lane, 2005.

Dibbell J., *My Tiny Life: Crime and Passion in a Virtual World*. New York: Henry Holt, 1998.

Doheny-Farina S., *The Wired Neighbourhood*. New Haven: Yale University Press, 1996.

Eagleton T. (ed), *Raymond Williams: Critical Perspectives*. Cambridge: Polity Press, 1989.

Ebo B., *Cyberghetto or Cybertopia?: Race, Class, and Gender on the Internet*. Westport, Conn.: Praeger, 1998.

Ebo B. (ed), *Cyberimperialism? Global Relations in the New Electronic Frontier*. London: Praeger 2001.

Edwards L. & Waelde C. (eds), *Law and the Internet: Regulating Cyberspace*. Oxford: Hart Pub. 1997.

Everard J., *Virtual States: The Internet and the Boundaries of the Nation State*. New York: Routledge, 2000.

Featherstone M. (ed), *Global Culture: Nationalism, Globalisation and Modernity*. London: Sage, 1990.

Featherstone M., *Undoing Culture: Globalization, Postmodernism and Identity*. London: Sage, 1995.

Fishwick M. W., *Probing Popular Culture: On and Off the Internet*. New York: Haworth Press, 2004.

Fitzgerald A. (ed), *Going Digital: Legal Issues for Electronic Commerce, Multimedia and the Internet*. St. Leonards, N.S.W.: Prospect Media, 1998.

Florida R., *The Rise of the Creative Class and How It's Transforming Work, Leisure, Community and Everyday Life*. Australia: Pluto Press, 2002.

Florida R., *The Flight of the Creative Class: The New Global Competition for Talent*. New York: HarperCollins, 2005.

Foucault M., *Discipline and Punish: The Birth of the Prison*. Ringwood, Victoria: Penguin Books Australia 1977.

Foucault M., *The History of Sexuality. Volume One: An Introduction*. Translated by Hurley R., London: Allen Lane 1978.

- Gallup G., Anderson J. & Shillito D., 'The Mirror Test', In Bekoff M., Allen C. & Burghardt G. (eds), *The Cognitive Animal*. Cambridge, Massachusetts: MIT Press, 2002.
- Gardner W., *Te Mura O Te Ahi: The Story of the Maori Battalion*. Auckland: Reed Books, 1992.
- Gauntlett D., *Web.Studies*. New York: Oxford University Press, 2000.
- Gee J. P., 'What is literacy', in Mitchell C. & Weiler K. (eds), *Rewriting Literacy*. New York: Bergin, 1991.
- Giacomello G., *National Governments and Control of the Internet: A Digital Challenge*. New York: Routledge, 2005.
- Gibson W., *Neuromancer*. New York: The Berkley Publishing Group, 1984.
- Gikandi S., *Maps of Englishness: Writing Identity in the Culture of Colonialism*. New York: Columbia University Press, 1996.
- Gilder G., *Telecosm: How Infinite Bandwidth Will Revolutionize Our World*. New York: Free Press, 2000.
- Gillard P., 'Telecommunication User Research and Public Policy', in Langtry B. (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998.
- Gillies J. & Cailliau R., *How The Web Was Born: The Story of the World Wide Web*. Oxford: Oxford University Press, 2000.
- Giovannetti E., Kagami M. & Tsuji M. (eds), *The Internet Revolution: A Global Perspective*. Cambridge: Cambridge University Press, 2003.
- Goggin G., 'Citizen and Beyond: Universal Service in the Twilight of the Nation State' in Langtry B. (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998.
- Goggin G. (ed), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004.
- Goggin G. & Wilson I.R., *Reforming Universal Service*. Redfern: Consumers Telecommunication Network 1993.
- Goldstein A., & O'Connor D., *E-Commerce for Development: Prospects and Policy Issues*. Paris: OECD Development Centre, 2000.
- Gómez R. & Hunt P. (eds), *Telecentre Evaluation: A Global Perspective*. Quebec: International Development Research Centre, 1999.

Goodwin M., *Cyber Rights: Defending Free Speech in the Digital Age*. Cambridge, Mass.: MIT Press, 2003.

Graham G., *The Internet: A Philosophical Enquiry*. London and New York: Routledge, 1999.

Gramsci A., *The Modern Prince and Other Writings*. Translated Marks L., New York: International Publishers, 1957.

Gramsci A., *Selections from the Prison Notebooks*. Translated and edited by Hoare Q. & Smith G. N., New York: International Publishers, 1971.

Gramsci A., *The Southern Question*. Translated Verdicchio P., Berkley CA.: Bordighera Press, 1995.

Grant A. (ed), *Australian Telecommunications Regulation: The Communications Law Centre Guide*. Sydney: Communications Law Centre, 1997.

Grant R. M., *Augustus to Constantine: The Thrust of the Christian Movement into the Roman World*. London: Collins, 1971.

Gregor S., Jones K., Larner T. & Newman S. (eds), *Farming the Web: The Use of the Internet in Rural Australia*. Rockhampton, Queensland: Central Queensland University Press, 1998.

Green L., Holloway D. & Quinn R., '@home Australian family life and the Internet' in Goggin G. (ed), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004.

Habermas J., *Legitimation Crisis*. Boston: Beacon Press, 1975.

Habib Sy J., 'Global Communications for a More Equitable World' in Kaul I., Grunberg I. & Stern M. A. (eds), *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999.

Hafner K., *Where Wizards Stay Up Late: The Origins of the Internet*. New York: Simon & Schuster, 1998.

Häikiö M., *Nokia: The Inside Story*. London & Boston: Prentice Hall/Financial Times, 2002.

Hall S., 'Cultural Studies and its Theoretical Legacies' in Grossberg L., Nelson C., Treichler P. A., Baughman L. & Macgregor Wise J. (eds), *Cultural Studies*, New York: Routledge, 1992.

Harcourt W. (ed), *Women@internet: Creating New Cultures in Cyberspace*. London: Zed Books, 1999.

Hardt M. & Negri A., *Empire*. London: Harvard University Press, 2000.

- Hawthorne S. & Klein R. (eds), *CyberFeminism: Connectivity, Critique and Creativity*. North Melbourne: Spinifex, 1999.
- Healy D., 'Cyberspace and Place: the Internet as Middle Landscape on the Electronic Frontier', in Porter D. (ed), *Internet Culture*. New York: Routledge, 1997.
- Hearn G., Mandeville T. & Anthony D., *The Communication Superhighway: Social and Economic Change in the Digital Age*. St Leonards, N.S.W.: Allen & Unwin, 1998.
- Held D., *Political Theory and the Modern State: Essays on State, Power and Democracy*. Cambridge: Polity Press, 1993.
- Henry D., Cooke S., Buckley P., Dumagan J., Gill G. & Pastore D., *The Emerging Digital Economy II*. Washington: U.S. Department of Commerce, 1999.
- Herumin W., *Censorship and the Internet: From Filters to Freedom of Speech*. Berkley Heights, N.J.: Enslow Publishers, 2004.
- Himanen P., *The Hacker Ethic and the Spirit of the Information Age*. London: Secker & Warburg, 2001.
- Hobbes T., *Leviathan, Or the Matter, Forme and Power of a Commonwealth Ecclesiastical and Civil*. New York: Collier Books, 1962.
- Hobbs V. M. & Blodgett J., *The Rural Differential: An Analysis of Population Demographics in Areas Served by Rural Telephone Companies*. Columbia: Rural Policy Research Institute, 1999.
- Hobsbawm E., 'Preface' in Kiernan V.G., *America: The New Imperialism: From White Settlement to World Hegemony*. New York: Verso, 2005.
- Holmes D., *eGov: eBuisness Strategies for Government*. London: Nicholas Brealey Publishing, 2002.
- Horkheimer M. & Adorno T. A., *The Dialectic of Enlightenment*. New York: Continuum, 1987.
- Hudson D., *Rewired*. Indianapolis, Ind.: Macmillan Technical Publishers, 1997.
- Hugo V., *The Hunchback of Notre Dame*. London: Collins, 1953.
- Huizinga J., *Homo Ludens: A Study of the Play Elements in Culture*. London: Routledge and Kegan Paul Ltd, 1949.
- Hyndes M., *Creating a Clearway on the New Silk Road: International Business and Policy Trends in Internet Commerce*. Canberra: Department of Foreign Affairs and Trade, 1999.
- Innis H., *Empire and Communication*. Toronto: University of Toronto Press, 1950.

Innis H., *The Bias of Communication*. Toronto: University of Toronto Press, 1951.

Jeffrey J., *Bridging the Digital Divide*. Northhampton, MA.: Edward Elgar Publishers, 2003.

Jones A., *Constantine and the Conversion of Europe*. London: English University Press, 1949.

Jones S. (ed), *Doing Internet Research: Critical Issues and Methods for Examining the Net*. Thousand Oaks, Calif.: Sage Publications, 1999.

Jordan T., *Cyberpower: The Culture and Politics of Cyberspace and the Internet*. London & New York: Routledge, 1999.

Jordan T. & Taylor P. A., *Hactivism and Cyberwars: Rebels with a Cause?* London & New York: Routledge, 2004.

Juul J., 'The Open and Closed: Games of Emergence Games of Progression' in Mäyrä F. (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

Katz J. E. & Rice R., *Social Consequences of Internet Use: Access, Involvement and Interaction*. Cambridge Mass.: MIT Press, 2002

Kaul I., Grunberg I. & Stern M. A. (eds), *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999.

Kendall L., 'MUDder? I Hardly Know Er! Adventures of a Feminist MUDder', in Cherney L. & Weise E. R. (eds), *Wired_women: Gender and New Realities in Cyberspace*. Seattle: Seal Press, 1996.

Kiernan V.G., *America – The New Imperialism: From White Settlement to World Hegemony*. New York: Verso, 2005.

Klein N., *No Logo*. Great Britain: Flamingo, 2000.

Klotz R. J., *The Politics of Internet Communication*. Lanham, Md.: Rowman & Littlefield Publishers, 2004.

Kolko B. E., Nakamura L. & Rodman G. B. (eds), *Race in Cyberspace*. New York: Routledge, 2000.

Kroker A., 'Virtual Capitalism', in Aronowitz S., Martinsons B. & Menser M. (eds), *Techno Science and Cyber Culture*. New York: Routledge, 1996.

Kutais B. G. (ed), *Internet Policies and Issues*. Commack, N.Y.: Nova Science, 1999.

Lakoff R. T., *The Language Wars*. Berkley: University of California Press, 2000.

- Lange B. & Ward D., *The Media and Electrons: A Handbook and Comparative Study*. Mahwah N.J.: Lawrence Erlbaum, 2004.
- Langtry B. (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998.
- Larson N., 'Imperialism, Colonialism, Postcolonialism', *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
- Lee M. J., *Consumer Culture Reborn: The Cultural Politics of Consumption*. New York: Routledge, 1993.
- Lehr W. H. & Pupillo L. M. (eds), *Cyber Policy and Economics in An Internet Age*. Boston: Kluwer Academic Publisher, 2002.
- Lenin V. I., *Selected Works*. London: Lawrence and Wishheart, 1968
- Lenin V. I., 'The Development of Capitalism in Russia: The Process of the Formation of a Home Market for Large Scale Industry', *Lenin: Collected Works*. London: Lawrence and Wishart, 1968.
- Lessig L., *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin, 2004.
- Lessig L., *The Future of Ideas: The Fate of the Commons in a Connected World*. New York: Vintage Books, 2002.
- Levine S., *The Art of Downloading Music*. London: Sanctuary Publishing, 2004.
- Levy P., *Collective Intelligence: Mankind's Emerging World in Cyberspace*. Translated by Bononno R., Cambridge, Massachusetts: Perseus Books, 1997.
- Lewis C. S., *The Screwtape Letters*. San Francisco: Harper, 2001.
- Litman J., *Digital Copyright: Protecting Property on the Internet*. Amherst, N.Y.: Prometheus Books, 2001.
- Livingston K.T., *The Wired Nation Continent: The Communications Revolution and Federating Australia*. Melbourne: Oxford University Press, 1996.
- Loader B. D., *The Governance of Cyberspace: Politics, Technology and Global Restructuring*. London: Routledge, 1997.
- Lovink G., *Dark Fiber: Tracking Critical Internet Culture*. Cambridge Mass.: MIT Press, 2002.
- Lovink G., *Uncanny Networks: Dialogues with the Virtual Intelligentsia*. Cambridge, Mass.: MIT Press, 2002.

Lovink G., *My First Recession: Critical Internet Culture in Translation*. Rotterdam: NAI Publishers, 2004.

Lury C., *Consumer Culture*. Oxford: Polity Press, 1996.

Lury C., *Cultural Rights: Technology, Legality and Personality*. London: Routledge, 1993.

Marlin-Bennett R., *Knowledge Power: Intellectual Property, Information and Privacy*. London: Lynne Rienner, 2004.

Marcus G. E. (ed), *Connected: Engagement With Media*. Chicago: The University of Chicago Press, 1996.

Marcuse H., *One Dimensional Man: Studies in the Ideology of Advanced Industrial Society*. Boston: Beacon Press, 1964.

Marx K., *Capital: A Critical Analysis of Capitalist Production Volume 1, 4th Edition*. Translated by Moore S. & Aveling E., USA: International Publishers Co, 1947.

Marx K., *Selected Writings in Sociology and Social Philosophy*. Translated by Bottomore T.B., London: McGraw-Hill 1964.

Marx K., *Surveys from Exile: Political Writings, Volume 2*. Translated by Fowkes B. & Jackson P., Harmondsworth: Penguin, 1973.

Marx K., *Capital: A Critique of Political Economy, Volume II*. Edited by Engels F., translated by Lasker I., Moscow: Progress Publishers, 1978.

Marx K. & Engels F., *The Communist Manifesto*. Harmondsworth England: Penguin Books, 1967.

Marx K. & Engels F., *Ireland and the Irish Question: A Collection of Writings*. New York: International Publishers, 1972.

McConnaughey J., Everette D. W., Reynolds T & Lader W. (eds), *Falling Through the Net: Defining the Digital Divide*. Washington: U.S. Department of Commerce, 1999.

McKibben B., *The Age of Missing Information*. USA: Plume, 1993.

McLelland M. & Gottlieb N. (eds), *Japanese Cybercultures*. London & New York: Routledge, 2003.

McWilliams B., *Spam Kings: The Real Story Behind the High-Rolling Hucksters Pushing Porn, Pills and @*#?% Enlargements*. Cambridge: O'Reilly, 2005.

Meštrović S. G., *Anthony Giddens: The Last Modernist*. London: Routledge, 1998.

- Mill J.S., *The Spirit of the Age*. Chicago, University of Chicago Press, 1942.
- Milton J., *Paradise Lost*. London: Penguin Books 2000.
- Misa T. J., *Leonardo to the Internet: Technology & Culture from the Renaissance to the Present*. Baltimore & London: Johns Hopkins University Press, 2004.
- Misa T. J., Brey P. & Feenberg A. (eds), *Modernity and Technology*. Cambridge Mass.: MIT Press, 2003.
- Moore-Gilbert B., 'Spivak and Bhabha' in Schwarz H. & Ray S. (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
- Morley D., *Home Territories: Media Mobility and Identity*. London: Routledge, 2000.
- Morris C. & Meadows M., 'Digital Dreaming: Indigenous Intellectual Property and New Communication Technologies' in Goggin G. (ed.), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004.
- Mossberg K., Tolbert C. & Stansbury M., *Virtual Inequality: Beyond the Digital Divide*. Washington D.C.: Georgetown University Press, 2003.
- Mowlana H. & Wilson L., *The Passing of Modernity: Communication and the Transformation of Society*. New York & London: Longman, 1990.
- Moylan A., *Clear Across Australia: A History of Telecommunications*. Melbourne: Nelson, 1984.
- Muir R., *Modern Political Geography*. New York: Macmillan 1975.
- Murelli E., *Breaking the Digital Divide: Implications for Developing Countries*. London: Commonwealth Secretariate; SFI Publishing, 2002.
- Nakamura L., *Cybertypes: Race, Ethnicity, and Identity on the Internet*. New York: Routledge, 2002.
- Napoli J., *The Media Habits and Internet Practices of the Net Generation*. Perth, W.A.: School of Marketing, Curtin University, 1998.
- Naughton J., *A Brief History of the Future: The Origins of the Internet*. London: Weidenfeld & Nicolson, 1999.
- Neuman R. W., McKnight L. & Solomon R. J., *The Gordian Knot: Political Gridlock on the Information Highway*. London: MIT Press, 1998.
- Newman F., Couturier L. & Scurry J., *The Future of Higher Education: Rhetoric Reality and the Risks of the Market*. San Francisco: Jossey – Bass, 2004.

- Nieuwenhuizen J., *Asleep at the Wheel: Australia on the Superhighway*. Sydney: ABC Books for the Australian Broadcasting Association, 1997.
- Nkrumah K., *Neo Colonialism: The Last Stage of Imperialism*. London: Thomas Nelson and Sons Ltd, 1965.
- Norman, A. L., *Informational Society: An Economic Theory of Discovery, Invention and Innovation*. Boston: Kluwer Academic Publishers, 1993.
- Norris P., *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge: Cambridge University Press, 2001.
- Northfield D., *The Information Policy Maze: Global Challenges – National Responses*. Melbourne: RMIT University Press, 1999.
- O'Reilly & Associates (eds), *The Harvard Conference on the Internet and Society*. Sebastopol, California: O'Reilly & Associates, 1997.
- Parker G., *The Thirty Years War*. London & Boston: Routledge and Kegan Paul, 1984.
- Petre D. & Harrington D., *The Clever Country: Australia's Digital Future*. Sydney: Pan Macmillian, 1996.
- Poole H., Schuyler T., Senft T. & Moschovitis C., *History of the Internet: A Chronology 1843 to the Present*. Santa Barbara: ABC – Cleo Inc, 1999.
- Porter D. (ed), *Internet Culture*. New York: Routledge, 1997.
- Potts A., *Civic Leaders and the University: State and Municipal Politicians' Perspectives on Higher Education in Australia*. New York: Peter Lang Publishing, 2003.
- Price Waterhouse Coopers, *Report to Telstra Corporation Limited on Improvements required to the provision of priority service based on an examination of the facts surrounding the maintenance and supply of services to Ms Rose Boulding*. March 2002.
- Proudhon, P.-J., *What is property?* Edited and translated by Kelley D. R. and Smith B. G., Cambridge, England and New York, USA: Cambridge University Press, 1994.
- Quayson A., 'Postcolonialism and Postmodernism', *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.
- Quirk P. & Forder J., *Electronic Commerce and the Law*. Sydney: John Wiley and Sons Ltd, 2001.
- Quittner J. & Slatalla M., *Speeding the Net: The Inside Story of Netscape and How It Changed the World*. London: Orion Books, 1998.

Raiche H., 'The Policy Context' in Grant A. (ed), *Australian Telecommunications Regulation: The Communications Law Centre Guide*. Sydney: Washington Press, 1997.

Raiche H., 'Universal Service in Australia' Langtry B. (ed), *All Connected, Universal Service in Telecommunications*. Carlton: Melbourne University Press, 1998.

Reid E., 'Communication and Community on Internet Relay Chat: Constructing Communities'. in Ludlow P. (ed), *High Noon on the Electronic Frontier*. Cambridge MA: MIT Press, 1996.

Rheingold H., *The Virtual Community: Homesteading on the Electronic Frontier*. Reading, Mass: Addison-Wesley Pub. Co., 1993.

Rifkin J., *The Age of Access: How the Shift From Ownership to Access is Transforming Modern Life*. London: Penguin, 2000.

Robertson D. S., *The New Renaissance: Computers and the Next Level of Civilization*. New York & Oxford: Oxford University Press, 1998.

Roberson R., 'Mapping the Global Condition: Globalisation as a Central Concept' Featherstone M. (ed), *Global Culture: Nationalism, Globalisation and Modernity*. London: Sage, 1990.

Robins K. & Webster F. (eds), *The Virtual University?: Knowledge Markets and Management*. London: Oxford University Press, 2003.

Sackman H., *Computers and International Socio-Economic Problems*. New York: Holland-North, 1987.

Said E., *Orientalism*. London: Routledge & Kegan Paul Ltd, 1978.

Said E., *The Word, the Text, and the Critic*. Cambridge: Harvard University Press, 1983.

Said E., *Culture and Imperialism*. London: Chatto & Windus 1993.

Said E., *Reflections on Exile*. London: Granta Books, 2000.

Said E., *Human and Democratic Criticism*. New York: Columbia University Press, 2003.

Samoriski J., *Issues in Cyberspace: Communication, Technology, Law and Society on The Internet Frontier*. Boston: Allyn and Bacon, 2002.

Sardar Z. & Davis M., *Why do People Hate America?* Cambridge: Icon, 2004.

Schiller D., *Digital Capitalism: Networking the Global Market System*. Cambridge, Mass.: MIT Press, 1999.

Schirato T. & Yell S., *Communication and Cultural Literacy*. St Leonards: Allen and Unwin, 1996.

Schoen D. A., Sanyal B. & Mitchell W. J. (eds), *High Technology and Low Income Communities: Prospects for the Positive Use of Advanced Information Technology*. London: MIT Press, 1999.

Schwarz H. & Ray S. (eds), *A Companion to Postcolonial Studies*. Oxford: Blackwell Publishers, 2000.

Shane P. M. (ed), *Democracy Online: The Prospects for Political Renewal Through the Internet*. New York: Routledge, 2004.

Sheridan A., *Michel Foucault: The Will to Truth*. New York and London: Routledge, 1980.

Sheridan S., *Who Was That Woman?* Sydney: UNSW Press, 2002.

Sekyi-Otu A., *Fanon's Dialectic of Experience*. Cambridge: Harvard University Press, 1996.

Servon L. J., *Bridging the Digital Divide: Technology, Community and Public Policy*. Malden, MA.: Blackwell Publishers, 2002.

Smith A., *An Inquiry into the Nature and Causes of the Wealth of Nations*. London: Methuen and Co., Ltd., (ed). Edwin Cannan, 1904. Fifth edition,

Smith A., *The Geopolitics of Information: How Western Culture Dominates the World*. New York: Oxford University Press, 1980.

Smith M. & Marx L. (eds), *Does Technology Drive History? The Dilemma of Technological Determinism*. London: MIT Press, 1998.

Solove D. J., *The Digital Person: Technology and Privacy in the Information Age*. New York: New York University Press, 2004.

Spector R., *Amazon.com: Get Big Fast USA*: Harper Collins, 2000.

Spivak G. C., 'Pax Electronica: Against Crisis-Driven Global Telecommunications' in Lovink G., *Uncanny Networks: Dialogues with the Virtual Intelligentsia*. London: MIT Press, 2002.

Spivak G. C., *Outside in the Teaching Machine*. London: Routledge, 1993.

Spivak G. C., *A Critique of Postcolonial Reason: Towards a History of the Vanishing Present*. Cambridge, MA.: Harvard University Press, 1999.

Spivak G. C., *Traffic & Identity: Further Essays on Culture As Politics*. London: Routledge, 2000.

Spivak G. C., 'Can the Subaltern Speak' in C. Nelson & L. Grossberg (ed.) *Marxism and the Interpretation of Culture*. London: Macmillan Education, 1988.

Standage T., *The Victorian Internet: The Remarkable Story of the Telegraph and the Nineteenth Century's On-line Pioneers*. New York: Berkley Books, 1999.

Stark R., *The Rise of Christianity: How the Obscure, Marginal, Jesus Movement Became the Dominant Religious Force in the Western World in a Few Centuries*. San Francisco: Harper Collins, 1997

Stefik M., *Internet Dreams: Archetypes Myths and Metaphors*. London: MIT Press, 1996.

Stefik, M., *The Internet Edge: Social, Technical and Legal Challenges for a Networked World*. London: MIT Press 1999.

Stephenson N., *Snow Crash*. New York: Bantam Doubleday Dell Publishing Group, 1992.

Stichler R. N. & Hauptman R. (eds), *Ethics, Information, and Technology: Readings*. Jefferson, N.C.: McFarland, 1998.

Stoll C., *Silicon Snake Oil: Second Thoughts on the Information Highway*. New York: Doubleday, 1995.

Street B., *Literacy in Theory and Practice*. Cambridge: Cambridge University Press, 1984.

Swelzer I., *Neo-Conservatism*. London: Atlantic Books, 2004.

Talalay M., Farrands C. & Tooze R. (eds), *Technology, Culture and Competitiveness: Change and the World Political Economy*. London: Routledge, 1997.

Tan F. B., Corbett P. S. & Yuk Yong Wong., *Information Technology Diffusion in the Asia Pacific: Perspectives on Policy, Electronic Commerce and Education*. Hershey, PA: Idea Group, 1999.

Tanner L., *Open Australia*. Sydney: Pluto Press, 1999.

Tapscott D., *Growing Up Digital: the Rise of the Net Generation*. New York: McGraw-Hill, 1998.

Taylor T. L., "'Whose Game Is This Anyway?': Negotiating Corporate Ownership in a Virtual World' in Mäyrä F. (ed), *Computer Games and Digital Cultures Conference Proceedings*. Tampere: Tampere University Press, 2002.

Taylor T.L., 'The Social Design of Virtual Worlds: Constructing the User and Community Through Code' in Consalvo M., Baym N., Hunsinger J., Jensen K.,

Logie J., Murero M. & Shade L. (eds), *Internet Research Annual, Volume 1: Selected Papers from the Association of Internet Researchers Conferences 2000-2002*. New York: Peter Lang, 2004.

Teixeira P., Jongbloed B., Hill D. & Amaral A (eds), *Markets in Higher Education: Rhetoric or Reality*. Dordrecht: Kluwer, 2004.

Temin P. & Galambos L., *The Fall of the Bell System: A Study in Prices and Politics*. Sydney: Cambridge University Press, 1987.

Thomas J., 'Horizons of Expectation: Imaginary trajectories of electronic government' in Goggin G. (ed.), *Virtual Nation: The Internet in Australia*. Sydney: UNSW Press, 2004.

Thomas, N. *Colonialism's Culture: Anthropology Travel and Government*. Princeton, New Jersey: Princeton University Press, 1994.

Tiffin J. & Rajasingham L., *The Global Virtual University*. London: Routledge Falmer, 2003.

Turkle S., *Life on the Screen: Identity in the Age of the Internet*. New York: Simon & Schuster 1995.

Unsworth L., 'Changing dimensions of school literacies', *Teaching Multiliteracies Across the School Curriculum*. Melbourne: Macmillan, 2001, pp. 7-20.

Urry J., *Sociology Beyond Societies: Mobilities for the Twenty First Century*. London: Routledge, 2000.

Vaidhyanathan S., *Copyrights and Copywrongs: The Rise of Intellectual Property and How it Threatens Creativity*. New York: NYU Press, 2001.

Vaidhyanathan S., *The Anarchist in the Library: How the Clash Between Freedom and Control is Hacking the Real World and Crashing the System*. New York: Black Books, 2004.

Valentine G., Holloway S.L. & Bingham N., 'Transforming Cyberspace: Children's interventions in the new public sphere' in Valentine G., Holloway S.L., (eds) *Children's Geographies: Playing, Living, Learning*. London: Routledge, 2000.

Vance L. M., *A Brief History of English Bible Translations*. USA: Vance Publications 1993.

Vince J. & Earnshaw R. (eds), *Digital Media: The Future*. London: Springer-Verlag, 2000.

Virilio P., *Speed and Politics: An Essay on Dromology*. Translated by Polizzotti M., New York: Columbia University, 1986.

Virilio P., *Open Sky*. London: Verso, 1997.

- Virilio P., *The Information Bomb*. Translated by Turner C., London: Verso, 2001
- Wark M., *Virtual Geography: Living with Global Media Events*. Bloomington and Indianapolis: Indiana University Press, 1994.
- Wass E. S., *Addressing the World: National Identity and Internet Country Code Domains*. Manham, Md.: Rowman & Littlefield, 2003.
- Webster F., *Theories of the Information Society*. London and New York: Routledge, 1995.
- Wedgwood C. V., *The Thirty Years War*. London: J. Capre, 1938.
- Weinberger D., *Small Pieces Loosely Joined: A Unified Theory of the Web*. Cambridge MA: Perseus Books Group, 2003.
- Wellman B. & Haythornthwaite C. (eds), *The Internet in Everyday Life*. Oxford: Blackwell Publishers, 2002.
- Wertheim M., *The Pearly Gates of Cyberspace: A History of Space from Dante to the Internet*. Sydney: Doubleday 1999.
- Wilhelm A. G., *Democracy in the Digital Age: Challenges to Political Life in Cyberspace*. New York & London: Routledge, 2000.
- Wolfreys J. (ed), *The Derrida Reader: Writing Performances*. Lincoln: University of Nebraska Press, 1998
- Woolgar S. (ed), *Virtual Society? Technology, Cyberbole, Reality*. Oxford: Oxford University Press, 2002.
- Wright J., *Bushtrack to Superhighway: Public Access to Electronic Information*. Sydney: State Library of New South Wales, 1995.
- Wyatt S., Henwood F, Miller N. & Senker, P. (eds), *Technology and In/Equality: Questioning the Information Society*. London and New York: Routledge, 2000.
- Yearley S., *Science, Technology, and Social Change*. London: Unwin Hyman, 1988.
- Young R., *White Mythologies: Writing History and the West*. London: Routledge, 1990.
- Young R., *Postcolonialism: An Historical Introduction*. Oxford: Blackwell Publishers, 2001.
- Zelmsky R., Wegner G. & Massy W., *Remaking The American University: Market Smart and Mission Centered*. New York: Rutgers University Press, 2005.

Journals and Academic Papers

Airo-Farulla G., 'Regulating the Internet: Strategies for control', *Media International Australia, Incorporating Culture and Policy*. November 2001, number 101.

Azari R. & Pick J. B., 'Technology and society: socioeconomic influences on technological sectors for United States counties', *International Journal of Information Management*. February 2005, volume 25, issue 1, p 21.

Bauman, Z. 'Space in the Globalising World' *Theoria*. 2001, volume 97, pp.1-22.

Bech E. & Shirin-Sahay S., 'On the Margins of the "Information Society": A comparative Study of Mediation', *Information Society*. 2004, volume 20, issue 4.

Beebe B., 'Law's empire and the final frontier: legalizing the future in the early Corpus Juris Spatialis', *Yale Law Journal*. 1st May 1999.

Best K. & Lewis J., 'Hacking the democratic mainframe: The Melissa virus and transgressive computing', *Media International Australia, Incorporating Culture and Policy*. May 2000, number 95.

Block W., 'The "digital divide" is not a problem in need of rectifying', *Journal of Business Ethics*. September 2004, volume 53, issue 4.

Bonfadelli H., 'The Internet and Knowledge Gaps: A Theoretical and Empirical Investigation', *European Journal of Communication*. 2002, volume 17, issue 1.

Brabazon T., 'Pay and scroll: Libraries, reading and the privatisation of knowledge', *Media International Australia, Incorporating Culture and Policy*. May 2002, number 103.

Brooks R. E., 'The new imperialism: violence norms and the "rule of law"', *Michigan Law Review*. 1st June 2003.

Brown J., 'The Digital Divide', *Civil Rights Journal*. Fall 1999, volume 4, issue 1.

Cope B. & Kalantzis M., 'Putting "multiliteracies" to the test', *Education Australia*. 1997, volume 35, pp. 17-21.

Coyle D., 'How not to educate the information age workforce', *Critical Quarterly*. April 2001, volume 43, issue 1.

Dick N., 'The Road to Television Networking', *Media International Australia, Incorporating Culture and Policy*. May 2001, Number 99, pp. 67-71.

Didur J. & Heffernan T., 'Revisiting the subaltern in the new empire', *Cultural Studies*. 2003, volume 17, issue 1.

Eamon M. K., 'Digital divide in computer access and use between poor and non-poor youth', *Journal of Sociology and Social Welfare*. June 2004, volume 31, issue 2.

Eason R., 'Universal Service and telecommunications competition', *Media International Australia, Incorporating Culture and Policy*. August 2000, number 96.

Eschenfelder K. & Desai A., 'Software as Protest: The Unexpected Resiliency of U.S. based DeCSS Posting and Linking', *Information Society*. 2004, volume 20, issue 2.

Foucault M., 'My Body, This Paper, This Fire', *Oxford Literary Review*. 1979, volume 4 issue 1, pp. 9-28.

Frechette J., 'Cyber Democracy or Cyber Hegemony? Exploring the political and economic structures of the Internet as an alternative source of information', *Library Trends*. Spring 2005, volume 53, issue 4, p 555.

Galliford M., 'Voicing a (virtual) postcolonial ethnography', *Cultural Studies Review*. September 2004, volume 10, number 1, pp. 193-198.

Galuszka P., 'The war over Internet piracy: Fearing lawsuits, college officials crack down on illegal downloading of music and videos on campus', *Black Issues in Higher Education*. March 11th 2004, volume 21, issue 2, p 24.

Goggin G. & Griff C., 'Regulating for content on the Internet: Meeting cultural and social objectives for broadband', *Media International Australia, Incorporating Culture and Policy*. November 2001, number 101, pp. 19-33.

Goodwin I. & Spittle S., 'The European Union and the information society', *New Media and Society*. June 2002, volume 4, number 2.

Goodwin R., 'Structures of Mutual Obligation', *Journal of Social Policy*. October 2002, volume 31, issue 4, p. 579.

Graham I., 'The operation of Australia's Internet content legislation', *Media International Australia, Incorporating Culture and Policy*. November 2001, number 101, pp. 73-81.

Green L., '(Not) using the remote commercial television service to dispel distance in rural and remote Western Australia', *Media International Australia, Incorporating Culture and Policy*. August 1998, number 88, pp. 25-39.

Gunkel D. J., 'Second thoughts: towards a critique of the digital divide', *New Media and Society*. December 2003, volume 5, number 4.

Hammond A. S., 'The Telecommunications Act 1996: Codifying the Digital Divide', *Federal Communications Law Journal*. December 1997, volume 50, number 1, pp. 179-214.

Hargittai E., 'Weaving the Western Web: Explaining differences in Internet connectivity among OECD countries', *Telecommunications Policy*. November-December 1999, volume 23, issues 10-11.

Hecht B., 'Bridging the digital divide', *Journal of Housing and Community Development*. March-April 2001, volume 58, issue 2.

Henning V., 'On the reproduction of the musical economy after the Internet', *Media Culture and Society*. 2005, volume 27, issue 2.

Hills J., 'Telecommunications and Democracy: The International Experience', *Telecommunications Journal*. January 1993, volume 60, number 1, pp. 21-29.

Hindman D. B., 'The Rural-Urban Digital Divide', *Journalism & Mass Communication Quarterly*. Autumn 2000, volume 77, issue 3.

Holloway D., 'Disparities in Internet access: A case study of the digital divide in Western Sydney', *Australian Journal of Social Issues*. February 2002, volume 37, issue 1.

Holmes P. & O'Halloram S., 'Communications across cultures on the Internet: Implications for global (ising) e-education', *Australian Journal of Communications*. 2003, volume 30, issue 2.

Horton M., 'The Internet and the empowered consumer: From scarcity of the commodity to the multiplicity of subjectives', *Media International Australia, Incorporating Culture and Policy*. May 1999, number 91, pp. 111-125.

Humphreys S., 'Online multi-user games: playing for real', *Australian Journal of Communications*. 2003, volume 30, issue 1.

Humphreys S., Fitzgerald B., Banks J. & Suzor N. 'Fan-based Production for Computer Games: User-led Innovation, The 'drift of value' and Intellectual Property Rights', *Media International Australia, Incorporating Culture and Policy*. February 2005, volume 2005, number 114, pp. 16-29.

Jacka L. & Wilson H., 'American Empire: Media and International Insecurity', *Media International Australia, Incorporating Culture and Policy*. November 2004, volume 2004, number 113, pp. 5-9.

Jung K. D., 'Closing the Digital Gap is the Key to Peace', *New Perspectives Quarterly*. Spring 2002, volume 19, issue 2.

Keightley K., 'Low television, high fidelity: taste and the gendering of home entertainment technologies', *Journal of Broadcasting and Electronic Media*. June 2003, p 236.

Kent M., 'Spam Regulation and Australia: National Sovereignty and the .au' AQ, *The Australian Quarterly*. July-August 2004, volume 76, issue 4.

Kerr O. S., 'Internet Surveillance Law After the USA Patriot Act: The Big Brother That Isn't'. *Northwestern University Law Review*. 2003, Volume. 97.

Kim S. T. & Weaver D., 'Communications research about the Internet: a thematic meta-analysis', *New Media and Society*. December 2002, volume 4, number 4.

Koehler W., 'Virtual Inequality: Beyond the Digital Divide', *Journal of the American Society for Information, Science and Technology*. September 2004, volume 55, issue 11.

Kolo C. & Baur T., 'Living a Virtual Life: Social Dynamics of Online Gaming', *Games Studies*. November 2004, volume 4, issue 1.

Lankshear C., 'Frameworks and workframes: literacy policies and new orders', *Unicorn*. 1998, volume 24, number 2.

Leisten S., Flew T. & Hearn G., 'Alternative Intellectual Property Systems for the Digital Age', *Media International Australia, Incorporating Culture and Policy*. February 2005, volume 2005, number 114, pp. 87-98.

Lemley M. A. & Reese R. A., 'Reducing Digital Copyright Infringement Without Restricting Innovation', *Stanford Law Review*. 2004, volume 56 issue 6.

Leoussi A., 'IT in Western Culture: A New Technology with Ancient Roots', *Knowledge Technology & Policy*. Summer 2000, volume 13, issue 2.

Leyshon A., Webb P., French S., Thrift N. & Crewe L., 'On the reproduction of the musical economy after the Internet', *Media, Culture and Society*. 2005, volume 27 issue 2, pp. 177-209.

Livingstone S., 'The Challenge of Changing Audiences: Or, What is the Audience Researcher to do in the Age of the Internet?', *European Journal of Communication*. 2004, volume 19, issue 1.

Lovink G., 'After the dotcom crash: recent literature on the Internet, business and society', *Cultural Studies Review*. May 2002, volume 8, number 1, pp. 130-154.

Macken-Horarik M., 'Exploring the requirements of critical school literacy: a view from two classrooms', in F. Christie & R. Mission (eds), *Literacy and Schooling*. London: Routledge, 1998

Madden G. & Coble-Neal G., 'Internet Use in rural and remote Western Australia', *Telecommunications Policy*. April-May 2003, volume 27, issues 3-4, pp. 253-266.

Marks L., 'Antonio Gramsci', *The Marxist Quarterly*. October 1956, volume 3, number 4, pp. 225-238.

Marshall L., 'The effects of piracy upon the music industry: a case study of bootlegging', *Media, Culture and Society*. 2004, volume 26 issue 2, pp. 163-181.

Maurer B., 'Cyberspatial sovereignties: offshore finance, digital cash, and the limits of liberalism', *Indiana Journal of Global Legal Studies*. Spring 1998, volume 5, number 2, pp. 493-519.

- McClelland A., 'Mutual obligation and the welfare responsibilities of government', *Australian Journal of Social Issues*. August 2002, volume 37, issue 3, p 209.
- McMillen J., 'Online Gambling: Challenges to National Sovereignty and Regulation', *Prometheus*. 2000, volume 18, number 4.
- McRae, L., 'Rethinking tourism: Edward Said and a politics of meeting and movement', *Tourist Studies*. 2003, volume 3, number 3, pp.235-251.
- Mehra B., Merkel C. & Bishop A. P., 'The Internet for empowerment of minorities and marginalised users', *New Media and Society*. December 2004, volume 6, number 6.
- Michaelson G., 'Intellectual property issues on IP networks', *Media International Australia, Incorporating Culture and Policy*. November 2001, Number 101, pp. 57-73.
- Miller N., 'Anti-spin: Using the Internet resources to unwind political claims', *ETC.: A Review of General Semantics*. January 2005, volume 62, issue 1, p 76.
- Mitra A., 'Marginal voices in cyberspace', *New Media and Society*. March 2001, volume 3, number 1.
- Mohammed S. N., 'Self-presentation of small developing countries on the World Wide Web: A study of official web sites', *New Media and Society*. August 2004, volume 6, number 4.
- Munro N., 'When the Dot-Com Bubble Burst', *National Journal*. 10th February, 2001, volume 33, issue 6.
- Nakamura L., 'Race In/For Cyberspace: Identity Tourism and Racial Passing on the Internet.', *Works and Days*. 1995, volume 13, numbers 1-2.
- Narismulu P., 'Examining the undisclosed margins: postcolonial intellectuals and subaltern voices', *Cultural Studies*. 2003, volume 17, issue 1.
- Opoku-Mensah, A., 'Twin peaks: WSIS from Geneva to Tunis', *Gazette*. June-August 2004, volume 66, issues 3-4, pp. 253-273.
- Papacharissi Z., 'The virtual sphere: The Internet as a public sphere', *New Media and Society*. March 2002, volume 4, number 1.
- Parayil G., 'The Digital Divide and Increasing Returns: Contradictions in Information Capitalism', *Information Society*. 2005, volume 21, issue 1.
- Parker E. B., 'Closing the Digital Divide in Rural America', *Telecommunications Policy*. May 2000, volume 24, issue 4, p. 281.

Poster M., 'Consumption and digital commodities in the everyday life', *Cultural Studies*. 2004, volume 18, issues 2-3, p. 409.

Poster M., 'Digital networks and citizenship', *PMLA*. January 2002, volume 117, issue 1.

Putnis P. & Clark E., 'Copyright, Media and Innovation: Then and Now', *Media International Australia, Incorporating Culture and Policy*. February 2005, volume 2005, number 114, pp. 5-15.

Rimmer M., 'Virtual Countries: Internet Domain Names and Geographical Terms', *Media International Australia, Incorporating Culture and Policy*. February 2003, number 106, pp. 124-136.

Ruffin O., 'Great firewall of China: A gang of Internet police states is emerging from the developing world say Oxblood Ruffin. And they're using Western Technology', *New Scientist*. 9th November 2002, volume 176, issue 2368.

Saldanha A., 'Identity, Spatiality and Post-Colonial Resistance: Geographies of the Tourism Critique in Goa', *Current Issues in Tourism*. 2002, volume 15, number 2, pp. 94-111.

Salter L., 'Colonisation tendencies in the development of the World Wide Web', *New Media and Society*. June 2005, volume 7, number 3.

Schooneveldt S., 'Do mutual obligation breach penalties coerce compliance with government expectation', *Australian Journal of Social Issues*. May 2004, volume 39, issue 2, p. 155.

Selwyn N., 'Reconsidering political and popular understandings of the digital divide', *New Media and Society*. June 2004, volume 6, number 3.

Selwyn N., Gorard S. & Furlong J., 'Whose Internet is it Anyway?: Exploring Adults' (Non) Use of the Internet in Everyday Life', *European Journal of Communication*. 2005, volume 20, issue 1.

Shafiul Alam Bhuiyan A., 'Universal Access in Developing Countries: A particular focus on Bangladesh', *Information Society*. 2004, volume 20, issue 4.

Shannon C. E., 'A mathematical theory of communication', *Bell System Technical Journal*. July and October, 1948, volume 27, pp. 379-423 & 623-656.

Smolin L. & Lawless K., 'Becoming literate in the technological age: new responsibilities and tools for teachers', *The Reading Teacher*. March 2003, volume 56, number 6.

Spurgeon C., 'National Culture, Communications and the Information Economy', *Media International Australia, Incorporating Culture and Policy*. May 1998, number 87, pp. 23-35.

- Steinberg P. E. & McDowell S. D., 'Mutiny on the bandwidth: The semiotics of statehood in the Internet domain name registries of Pitcairn and Nui', *New Media and Society*. March 2003, volume 5, number 1.
- Turkey J. W., 'The Teaching of Concrete Mathematics' *The American Mathematical Monthly*. January 1958, volume 65, number 1, pp. 1-9.
- van Zoonen L., 'Gendering the Internet: Claims, Controversies and Cultures', *European Journal of Communication*. 2002, volume 17, issue 1.
- Vartanova E., 'Digital divide and the changing political/media environment of post-socialist Europe', *Gazette*. October 2002, volume 64, issue 5, pp. 449-465.
- Walby S., 'The Myth of the Nation-State: Theorizing Society and Politics in a Global Era', *Sociology*. 2003, volume 37, issue 3, pp. 529-546.
- Wesley-Smith T., 'Net Gains? Pacific Studies in Cyberspace', *The Contemporary Pacific*. Spring 2003, volume 15, number 1.
- Wilson H., 'ABC Radio spaces: region, state, nation', *Media International Australia, Incorporating Culture and Policy*. August 1998, Number 88, pp. 39-51.
- Wilson S. & Turnbull N., 'Wedge Politics and Welfare Reform in Australia', *The Australian Journal of Politics and History*. September 2001, volume 47, issue 3, p. 384.
- Wyatt-Smith R., 'Technology evolution and citizen activism', *The Policy Studies Journal*. 2003, volume 31, number 3.
- Yang G., 'The Internet and the Rise of a Transnational Chinese Cultural Sphere', *Media Culture and Society*. 2003, volume 25, issue 4.
- Young S., 'What's the big idea? Production, consumption and Internet regulatory discourse', *Media International Australia, Incorporating Culture and Policy*. November 2001, number 101, pp. 9-19.

Government Publications

- AUSTEL, *Competitive Issues Relating to the Provision of Internet Services: Discussion Paper*. Melbourne: Australian Telecommunications Authority, 1997.
- Australian Bureau of Statistics, *Disability, Ageing and Carers*, Australia publication 4430.0. Canberra: ABS, 1998.
- Australian Bureau of Statistics, *Housing and Infrastructure in Aboriginal and Torres Strait Islander Communities, Australia*. ABS Catalogue No. 4710.0. Canberra: Commonwealth of Australia; 1999.

Australian Bureau of Statistics, *Use of the Internet by Householders, Australia*. Canberra: Australian Bureau of Statistics, 1998.

Australian Bureau of Statistics, *Use of the Internet by Householders, Australia*. Canberra: Australian Bureau of Statistics, May 1999.

Australian Information Economy Advisory Council, *National Bandwidth Enquiry: Report of the Australian Information Economy Advisory Council*. Canberra: Commonwealth of Australia, 1999.

Australian National Audit Office, *Electronic Service Delivery - Including Internet Use - by Commonwealth Government Agencies*. Canberra: Australian National Audit Office, 1999.

Blair T. & Hewitt P., *Connecting the UK*. Prime Minister's Strategy Unit with the Department of Trade and Industry, March 2005.

Culter T., *Information Economy 2002: Delivering the Future*. Adelaide: State Government of South Australia. August 2000.

Department of Communications and the Arts, *Consultation paper on the regulation of on-line information services*. Canberra: Attorney-General's Department, Department of Communications and the Arts, 1995.

Ernst & Young and Corrs Chambers Westgarth, *Removing Barriers: Creating the Environment of Trust, Confidence and Acceptance of Online Services: Draft Report for Comment*. Perth: Department of Commerce and Trade. 1999.

House of Representatives Standing Committee on Family and Community Affairs, *Health is Life: Report on the Inquiry into Indigenous Health*. Commonwealth of Australia; May 2000.

Information Industries Taskforce, *The Global Information Economy: The Way Ahead*. Canberra: Department of Industry, Science and Tourism, 1997.

Ministerial Council for the Information Economy, *Towards an Australian Strategy for the Information Economy*. Canberra: Department of Communications, Information Technology and the Arts, July 1998.

Multimedia Victoria, *Online Government 2001- from Vision to Reality*. Melbourne: State Government of Victoria, May 1998.

National Office of the Information Economy, *E-Commerce Beyond 2000*. Canberra: Department of Communications, Information Technology and the Arts, 1999.

National Office of the Information Economy, *The Current State of Play May 2001*. Canberra: Department of Communications, Information Technology and the Arts, 2001.

Office for Government Online, *Moving to an Electronic Market Place: Discussion Paper*. Canberra: Department of Communications, Information Technology, and The Arts, August 1999.

Office of the Auditor General, *The Internet and Public Sector Agencies*. West Perth: Office of the Auditor General, 1996.

Office of the Auditor General, *A Good Practice Guide for the Internet*. West Perth: Office of the Auditor General, 1997.

Senate Environment, Recreation, Communications and the Arts Reference Committee, *Telstra, to sell or not to sell*. Canberra: Commonwealth of Australia, 1996.

United Nations Economic and Social Council, *Development and international cooperation in the twenty-first century: the role of information technology in the context of a knowledge-based global economy*. New York: The United Nations, 2000.

Wondur Business and Technology Services, *Broadband Adoption by Agriculture and Local Government Councils – Australia and the USA: A Report for the Rural Industries Research and Development Corporation and the Australian Local Government Association*. Canberra: Rural Industries Research and Development Corporation, August 2004.

The Press

Annan K., 'Break the technology barrier', *International Herald Tribune*. 9th December 2003.

Barlow J. P., Birkets S., Kelly K. & Slouka M., 'Harper's forum: what are we doing online?' *Harper's*. August 1995, pp. 35-46.

Benns M., 'Sex in cyberspace boom', *The Sydney Morning Herald*. 27th July 2003.

Blackwell G., 'Analysis DVD the next MP3?', *The Toronto Star*. 20th March 2000

Butcher S., 'Computer sabotage charge a first for Australia', *The Age*. 29th August 2003.

Dibbell J., 'A Rape In Cyberspace: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society', *The Village Voice*. 23rd December 1993.

'Looking back on the crash', *The Guardian*. 10th March 2005.

Hanley C., 'Two little letters bring riches, and questions, to tiny, trusting nation', *AP Worldstream*. 4th July 2004.

Hopkins N., 'Music majors talking about a revolution in the digital age', *The Australian*, 4th January 2005.

Jesdanun A., 'File-sharing system becomes focus of international legal intrigue', *AP Worldstream*. 3rd February 2003.

Kitney D. & Jones M., 'Telstra's plan for internet TV revolution', *The Australian Financial Review*. 30th May 2005, p. 1.

LaBarre P., 'Not your Fathers Economist', *Industry Week*. 2nd May 1996.

Lazarus D., 'Looking Offshore: Outsourced UCSF notes highlight privacy risk. How one offshore worker sent tremor through medical system.' *San Francisco Chronicle*. 28th March 2004.

'Australian Communications Authority: ACA assessment process of Telstra's Universal Costs Claim for 1997-98 Financial Year', *M2 Presswire*. 9th November, 1998.

'Rural telecommunications – USO costing', *M2 Presswire*. 3rd February, 2000.

Martin P., 'Forget the spin, taping is not killing music' *The Sydney Morning Herald*. 31st December 2003.

McGuire D. & Krebs B., 'Attack On Internet Called Largest Ever', *The Washington Post*. 22nd October 2002.

'The dot.com bubble bursts', *New York Times*. 24th December 2000.

Smith D., 'We're all just an email away', *Sydney Morning Herald*. 9th August 2003

Turner A., 'Copy, right?', *The Sydney Morning Herald*. 24th February 2004

Zeff J., 'From Your Mouse to Your House', *Time Magazine*. 27th December 1999.

Appendix B: CD-ROM

The Invisible Empire, Digital Version

This CD ROM is included to assist examiners in the verification of scholarly protocols, while this CD is provided as an appendix it is not offered as an examinable element. This printed analogue hard copy is intended as the examinable form of this thesis.